2024 Annual Groundwater Monitoring Report

Monroe Power Plant Bottom Ash Impoundment
Inactive Coal Combustion Residual Unit

3500 East Front Street
Monroe, Michigan

July 2024

Prepared For:

DTE Electric Company

Prepared By:

TRC
1540 Eisenhower Place
Ann Arbor, Michigan 48108

Vincent E. Buening, C.P.G.
Senior Project Manager

David B. McKenzie, P.E.
Senior Project Engineer

Sarah B. Holmstrom, P.G.
Senior Hydrogeologist

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Executive Summary

On April 17, 2015, the United States Environmental Protection Agency (USEPA) published the final rule for the regulation and management of Coal Combustion Residuals (CCR) under the Resource Conservation and Recovery Act (RCRA) (the CCR Rule). The CCR Rule, as amended, applies to the DTE Electric Company (DTE Electric) Monroe Power Plant (MONPP) Bottom Ash Impoundment (BAI) Inactive CCR unit. On August 5, 2016, the USEPA published the CCR Rule companion *Extension of Compliance Deadlines for Certain Inactive Surface Impoundments*, which established the compliance deadlines for certain inactive CCR surface impoundments. Pursuant to the CCR Rule, no later than August 1, 2019, and annually thereafter, the owner or operator of an inactive CCR unit must prepare an annual groundwater monitoring and corrective action report for the CCR unit documenting the status of groundwater monitoring and corrective action for the preceding year in accordance with §257.90(e).

DTE Electric remained in detection monitoring at the MONPP BAI CCR Unit in the 2024 monitoring period. The semiannual detection monitoring events for 2024 were completed in October 2023 and April 2024, and included sampling and analyzing groundwater within the groundwater monitoring system for the indicator parameters listed in Appendix III to the CCR Rule. As part of the statistical evaluation, the data collected during detection monitoring events are evaluated to identify statistically significant increases (SSIs) in detection monitoring parameters to determine if concentrations in groundwater exceed background levels. Detection monitoring data that has been collected and evaluated in the 2024 reporting period are presented in this report.

A SSI for sulfate was detected at MW-7S during the October 2023 monitoring event and for chloride at MW-9 during the October 2023 and April 2024 monitoring event. These concentrations were evaluated and determined to be from natural variation in groundwater quality at these locations as detailed in the Alternate Source Demonstrations (ASDs) prepared to assess the SSI(s) for each well-constituent pair.

1.0 Introduction

1.1 Program Summary

On April 17, 2015, the United States Environmental Protection Agency (USEPA) published the final rule for the regulation and management of Coal Combustion Residuals (CCR) under the Resource Conservation and Recovery Act (RCRA) (the CCR Rule). The CCR Rule, as amended, applies to the DTE Electric Company (DTE Electric) Monroe Power Plant (MONPP) Bottom Ash Impoundment (BAI) Inactive CCR unit. On August 5, 2016, the USEPA published the CCR Rule companion *Extension of Compliance Deadlines for Certain Inactive Surface Impoundments*, which established the compliance deadlines for certain inactive CCR surface impoundments. Pursuant to the CCR Rule, no later than August 1, 2019, and annually thereafter, the owner or operator of an inactive CCR unit must prepare an annual groundwater monitoring and corrective action report for the CCR unit documenting the status of groundwater monitoring and corrective action for the preceding year in accordance with §257.90(e).

As documented in the *Annual Groundwater Monitoring Report for the Monroe Power Plant Bottom Ash Impoundment Inactive Coal Combustion Residual Unit (2023 Annual Report)* (TRC, July 2023), covering the 2023 reporting period (July 1, 2022 through June 30, 2023) activities, DTE Electric reported that the chloride concentration within groundwater at MW-9 was outside the established statistical background limit. As a result, an Alternate Source Demonstration (ASD) was performed pursuant to §257.94(e) and concluded that the SSI can be attributed to the variability in groundwater quality. Therefore, no SSI was associated with the MONPP BAI CCR unit in the 2023 reporting period and DTE Electric continued detection monitoring during the 2024 reporting period pursuant to §257.94 of the CCR Rule. The August 2023 ASD is provided in Appendix A.

TRC prepared this 2024 Annual Groundwater Monitoring Report (2024 Annual Report) for the MONPP BAI CCR unit on behalf of DTE Electric for the reporting period that extends from July 1, 2023 through June 30, 2024 and presents the monitoring results and the statistical evaluation of the detection monitoring parameters for the October 2023 and April 2024 semiannual groundwater monitoring events for the MONPP BAI Inactive CCR unit.

These events are the ninth and tenth detection monitoring events performed to comply with §257.94. The monitoring was performed in accordance with the *Groundwater Monitoring Work Plan Coal Combustion Residuals (CCR) Rule – Inactive Bottom Ash Basin DTE Monroe Plant* (Work Plan) (AECOM, September 2017) and statistically evaluated per the *Groundwater Statistical Evaluation Plan Coal Combustion Residuals (CCR) Rule – Inactive Bottom Ash Basin DTE Monroe Plant* (Stats Plan) (AECOM, April 2019, Revision 1 August 2019). As part of the statistical evaluation, the data collected during detection monitoring events are evaluated to identify statistically significant increases (SSIs) of detection monitoring parameters compared to background levels.

1.2 Site Overview

The MONPP is located in Section 16, Township 7 South, Range 9 East, at 7955 East Dunbar Road, Monroe in Monroe County, Michigan (Figure 1). The MONPP BAI Inactive CCR unit was operated from the mid-1970s through 2015 and is located within the southern portion of the MONPP parcel at latitude 41° 52' 30" North and longitude 83° 20' 70" West. The MONPP BAI Inactive CCR unit is bounded by the MONPP facility to the north and northeast, Lake Erie to the southeast and south, and Plum Creek / the discharge canal to the west (Figure 2). The implementation for the BAI closure by CCR removal is ongoing.

1.3 Geology/Hydrogeology

As presented in the Stats Plan, the bedrock in the site vicinity is overlain by approximately 40 to 50 feet of unconsolidated deposits of glacial origin. The deposits are comprised of two (2) distinct units: a hard glacial till immediately overlying bedrock and lacustrine (lakebed or lake shore) deposits which overlay the till unit. The till is comprised of highly compacted gray silty to sandy clay with some cobbles and boulders, and ranges from approximately 20 to 50 feet in thickness. The overlying lacustrine deposits are composed of 10 to 30 feet of fine-grained sand and silt with some soft clay except where there is a thin, discontinuous coarse sand unit at the base of the lacustrine sequence.

Under parts of the MONPP property this sand unit ranges in thickness from 5 to 20 feet and yields groundwater. The sand unit thins progressively to the west, having a thickness of approximately 12 feet on the east side of the discharge canal and thinning to less than a few feet within 150 feet to the west of the discharge canal. Farther to the west the sand unit is not present as shown by soil borings for monitoring wells drilled in 2016 around the Fly Ash Basin. This is consistent with the expectation that lake-deposited materials will decrease in thickness with distance away from Lake Erie. Accordingly, it appears that this sand unit is a localized lakeshore beach deposit formed by westward aggradation with rising lake level and subsequently blanketed by finer lacustrine deposits. Groundwater in the sand unit is under semi-confined conditions with groundwater elevations ranging between approximately 572.6 and 575.6 feet above mean sea level (msl).

A detailed summary of the site hydrogeology is presented in the *Monitoring Well Installation Report Coal Combustion Residuals (CCR) Rule – Inactive Bottom Ash Basin DTE Monroe* (Well Installation Report) (AECOM, April 2019, Revision 1 August 2019).

2.0 Groundwater Monitoring

2.1 Monitoring Well Network

A groundwater monitoring system has been established for the MONPP BAI Inactive CCR unit as detailed in the Well Installation Report. The detection monitoring well network for the MONPP BAI Inactive CCR unit currently consists of eleven monitoring wells that are screened in the uppermost aquifer. The monitoring well locations are shown on Figure 2.

As discussed in the Stats Plan, the groundwater monitoring system wells do not serve as simple upgradient or downgradient monitoring points because of two main factors:

- The sand unit located at the bottom of the lacustrine deposits is limited in extent. The unit is present in the inactive Bottom Ash Impoundment area and extends a limited distance north into the main Monroe Plant area. As noted above, the sand unit extends westward but also thins out and is not present in monitoring wells located greater than 500 feet west of the CCR unit. Therefore, there is no representative upgradient or background monitoring position available for the unit; and
- There is a strong confined hydraulic pressure in the sand unit aquifer. The overlying finer grained lacustrine deposits are relatively dry but water levels in the monitoring wells installed in the sand unit rise to within 2.5 to 12.0 feet below ground surface (bgs), likely driven by hydraulic pressure from the underlying bedrock aquifer system.

As such, an intrawell statistical approach was selected. An intrawell statistical approach requires that each of the downgradient wells doubles as the background and compliance well, where data from each individual well during a detection monitoring event is compared to a statistical limit developed using the background dataset from that same well. The monitoring system is comprised of monitoring wells MW-1S through MW-3S, MW-7S, and MW-9 through MW-15 located around the perimeter of the MONPP BAI (total of eleven background/downgradient monitoring wells). Additional discussion related to the selection of an intrawell statistical approach is presented in the Stats Plan.

2.2 Semiannual Groundwater Monitoring

The semiannual monitoring parameters for the detection groundwater monitoring program were selected per the CCR Rule's Appendix III to Part 257 – Constituents for Detection Monitoring. The Appendix III indicator parameters consist of boron, calcium, chloride, fluoride, pH (field reading), sulfate, and total dissolved solids (TDS) and were analyzed in accordance with the sampling and analysis plan included within the Work Plan. In addition to pH, the collected field parameters included oxidation reduction potential, dissolved oxygen, specific conductivity, temperature, and turbidity.

2.2.1 Data Summary

The first semiannual groundwater detection monitoring event for the 2024 monitoring period was performed October 16 to 18, 2023, by TRC personnel and samples were analyzed by Eurofins Laboratories, Inc. (Eurofins) in accordance with the Work Plan. Static water elevation data were collected at all eleven monitoring well locations. Groundwater samples were collected from the

eleven detection monitoring wells for the Appendix III indicator parameters and field parameters. A summary of the groundwater data collected during the October 2023 event is provided on Table 1 (static groundwater elevation data), Table 2 (field data), and Table 3 (analytical data).

The second semiannual groundwater detection monitoring event was performed April 1, 2024, by TRC personnel and samples were analyzed by Eurofins in accordance with the Work Plan. Static water elevation data were collected at all eleven monitoring well locations. Groundwater samples were collected from the eleven detection monitoring wells for the Appendix III indicator parameters and field parameters. A summary of the groundwater data collected during the April 2024 event is provided on Table 1 (static groundwater elevation data), Table 2 (field data), and Table 4 (analytical data). The laboratory analytical reports are included in Appendix B.

2.2.2 Data Quality Review

Data from the October 2023 and April 2024 detection monitoring events and associated verification resampling were evaluated for completeness, overall quality and usability, method-specified sample holding times, precision and accuracy, and potential sample contamination. The data were found to be complete and usable for the purposes of the CCR monitoring program. Data quality reviews are presented in Appendix C.

2.2.3 Groundwater Flow Rate and Direction

Groundwater elevation data collected during the October 2023 and April 2024 sampling events continue to show that groundwater within the uppermost aquifer generally flows toward Lake Erie to the southeast, south and to the plant's discharge channel to the southwest. Groundwater potentiometric surface elevations measured across the Site during the October 2023 and April 2024 sampling events are provided on Table 1 and were used to construct groundwater potentiometric surface maps shown on Figure 3 and Figure 4, respectively.

The groundwater flow rate and direction is consistent with previous monitoring events. The average hydraulic gradient throughout the Site during the October 2023 event is estimated at 0.003 ft/ft using the inferred 575 foot contour line and groundwater elevations measured at MW-9, MW-11, and MW-13, resulting in an estimated average seepage velocity of approximately 1.6 ft/day or 600 ft/year. The average hydraulic gradient throughout the Site during the April 2024 event is estimated at 0.002 ft/ft using the 575 foot contour line and groundwater level elevations measured at MW-9, MW-11, and MW-13, resulting in an estimated average seepage velocity of approximately 1.1 ft/day or 400 ft/year. Both events used the hydraulic conductivity of 164 ft/day averaged from the hydraulic conductivity values calculated for MW-1S, MW-3S, and MW-7S during aquifer testing and the assumed effective porosity of 0.3 described in the Well Installation Report.

The general flow direction is similar to that identified in previous monitoring rounds and continues to demonstrate that the downgradient wells are appropriately positioned to detect the presence of Appendix III parameters that could potentially migrate from the MONPP BAI Inactive CCR unit.

3.0 Statistical Evaluation

3.1 Establishing Background Limits

Per the Stats Plan, background limits were established for the Appendix III indicator parameters following the collection of at least eight background monitoring events using data collected from each of the eleven established detection monitoring wells (MW-1S through MW-3S, MW-7S, and MW-9 through MW-15). The statistical evaluation of the background data is presented in the 2019 Annual Report (TRC, July 2019). The Appendix III background limits for each monitoring well will be used throughout the detection monitoring period to determine whether groundwater has been impacted from the MONPP BAI Inactive CCR unit by comparing concentrations in the detection monitoring wells to their respective background limits for each Appendix III indicator parameter.

3.2 Data Comparison to Background Limits – First Semiannual Event (October 2023)

The concentrations of the indicator parameters in each of the detection monitoring wells (MW-1S through MW-3S, MW-7S, and MW-9 through MW-15) were compared to their respective statistical background limits calculated from the background data collected from each individual well (i.e., monitoring data from MW-1S is compared to the background limit developed using the background dataset from MW-1S, and so forth). The comparisons are presented on Table 3.

The statistical evaluation of the October 2023 Appendix III indicator parameters shows potential SSIs over background for:

- Sulfate at MW-7S; and
- Chloride at MW-9.

The exceedance observed during the First Semiannual Event in October 2023 for sulfate at MW-7S is not attributable to the CCR unit based on a previous demonstration of natural variability for this constituent at this location (TRC, September 2020). In addition, the chloride exceedance at MW-9 is also attributed to natural variability based on the demonstration that was submitted to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) on August 30, 2023 (Appendix A). These ASDs continue to be applicable given the conditions in which the October 2023 exceedances for sulfate at MW-7S and chloride at MW-9 occurred, and the basis of attributing these concentrations to natural variability of local and regional groundwater quality are consistent with the previous demonstrations. Therefore, no verification resampling was performed.

3.3 Data Comparison to Background Limits – Second Semiannual Event (April 2024)

The data comparisons for the April 2024 groundwater monitoring event are presented on Table 4. Based on the statistical evaluation of the April 2024 Appendix III indicator parameters potential SSIs were identified for the following:

- Chloride at MW-9.

The chloride exceedance at MW-9 is attributed to natural variability based on the demonstration that was submitted to EGLE on August 30, 2023 (Appendix A). This ASD continues to be applicable given the conditions in which the April 2024 exceedance for chloride at MW-9 occurred, and the basis of attributing this concentration to natural variability is consistent with the previous demonstration.

4.0 Conclusions and Recommendations

There are no SSIs over background limits that are attributable to the MONPP BAI CCR unit for the October 2023 and April 2024 monitoring events and detection monitoring will continue.

The next semiannual detection monitoring event at the MONPP BAI is scheduled for the fourth calendar quarter of 2024.

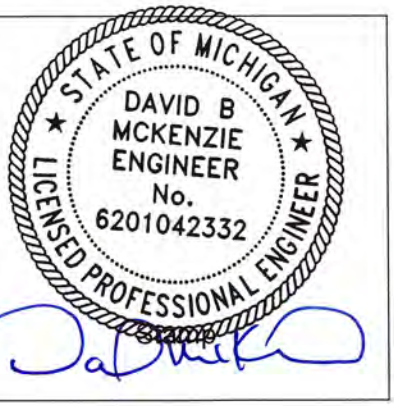
5.0 Groundwater Monitoring Report Certification

The U.S. EPA's Disposal of Coal Combustion Residuals from Electric Utilities Final Rule Title 40 CFR Part 257 §257.90(e) requires that the owner or operator of an existing CCR unit prepare an annual groundwater monitoring and corrective action report.

Annual Groundwater Monitoring Report Certification
Monroe Power Plant Bottom Ash Impoundment
Monroe, Michigan

CERTIFICATION

I hereby certify that the annual groundwater and corrective action report presented within this document for the MONPP BAI CCR unit has been prepared to meet the requirements of Title 40 CFR §257.90(e) of the Federal CCR Rule. This document is accurate and has been prepared in accordance with good engineering practices, including the consideration of applicable industry standards, and with the requirements of Title 40 CFR §257.90(e).

Name: David B. McKenzie, P.E.	Expiration Date: December 17, 2025	
Company: TRC Engineers Michigan, Inc.	Date: July 30, 2024	

6.0 References

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USEPA. April 2018. Barnes Johnson (Office of Resource Conservation and Recovery) to James Roewer (c/o Edison Electric Institute) and Douglas Green, Margaret Fawal (Venable LLP). Re: Coal Combustion Residuals Rule Groundwater Monitoring Requirements. April 30, 2018. United States Environmental Protection Agency, Washington, D.C. 20460. Office of Solid Waste and Emergency Response, now the Office of Land and Emergency Management.

Tables

Table 1
Groundwater Elevation Summary – October 2023 and April 2024
Monroe Power Plant BAI Inactive CCR Unit - RCRA CCR Monitoring Program
Monroe, Michigan

Well ID	MW-1S		MW-2S		MW-3S		MW-7S		MW-9		MW-10		MW-11		MW-12		MW-13		MW-14		MW-15	
Date Installed	9/19/2016		9/19/2016		9/20/2016		9/28/2016		9/19/2017		9/20/2017		9/20/2017		9/21/2017		9/21/2017		9/22/2017		9/26/2017	
TOC Elevation	582.62		578.85		577.58		576.20		579.05		577.46		580.58		582.49		580.97		580.76		580.80	
Geologic Unit of Screened Interval	Silt and Sand		Sand and Sandy clay		Silt and Sand		Sand and Gravel		Sand and Gravel		Sand and Sandy clay		Silt		Silt and Sand		Clay, Silt, and Sand		Silt and Sand		Sandy Clay and Sand	
Screened Interval Elevation	538.80 to 548.80		538.20 to 548.20		538.10 to 548.10		542.60 to 552.60		541.37 to 551.37		540.79 to 550.79		537.84 to 547.84		537.90 to 547.90		543.25 to 553.25		537.87 to 547.87		539.61 to 549.61	
Unit	ft BTOC	ft	ft BTOC	ft	ft BTOC	ft	ft BTOC	ft	ft BTOC	ft	ft BTOC	ft	ft BTOC	ft	ft BTOC	ft	ft BTOC	ft	ft BTOC	ft	ft BTOC	ft
Measurement Date	Depth to Water	GW Elevation	Depth to Water	GW Elevation	Depth to Water	GW Elevation	Depth to Water	GW Elevation	Depth to Water	GW Elevation	Depth to Water	GW Elevation	Depth to Water	GW Elevation	Depth to Water	GW Elevation	Depth to Water	GW Elevation	Depth to Water	GW Elevation	Depth to Water	GW Elevation
10/16/2023	8.55	574.07	4.83	574.02	3.68	573.90	2.40	573.80	5.00	574.05	3.35	574.11	6.64	573.94	8.51	573.98	8.22	572.75	5.78	574.98	7.93	572.87
4/1/2024	8.84	573.78	5.26	573.59	3.81	573.77	1.90	574.30	4.49	574.56	2.83	574.63	7.03	573.55	8.91	573.58	7.68	573.29	5.44	575.32	7.32	573.48

Notes:

Elevations are reported in feet relative to the North American Vertical Datum of 1988.

ft BTOC - feet below top of casing

Table 2
Summary of Field Parameters – October 2023 to April 2024
Monroe Power Plant BAI Inactive CCR Unit - RCRA CCR Monitoring Program
Monroe, Michigan

Sample Location	Sample Date	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Specific Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)
MW-1S	10/16/2023	0.40	-80.6	6.5	1,495	13.0	10.0
	4/1/2024	0.85	-127.0	7.1	1,391	11.9	20.0
MW-2S	10/17/2023	0.25	-36.3	7.3	2,270	14.3	10.0
	4/1/2024	1.59	-93.1	7.3	1,509	13.1	4.56
MW-3S	10/17/2023	0.10	-117.3	7.4	2,309	15.7	371
	4/1/2024	1.73	-28.5	7.1	1,446	11.5	44.2
MW-7S	10/18/2023	0.90	109.5	7.0	1,615	14.7	7.00
	4/1/2024	1.70	-89.3	7.4	789	11.9	4.70
MW-9	10/17/2023	0.11	-120.0	7.0	1,615	15.4	9.80
	4/1/2024	0.60	-137.0	7.0	1,285	13.1	10.0
MW-10	10/17/2023	0.10	-280.3	7.2	1,635	15.6	9.50
	4/1/2024	0.70	-226.0	7.3	1,306	13.3	9.90
MW-11	10/17/2023	0.45	-32.3	7.3	2,570	13.5	9.80
	4/1/2024	2.62	-32.8	7.1	1,576	10.8	4.78
MW-12	10/16/2023	1.90	9.3	7.4	1,728	13.5	8.00
	4/1/2024	1.77	-64.8	7.4	1,410	12.8	4.40
MW-13	10/16/2023	0.40	-120.5	7.0	813	13.8	10.0
	4/1/2024	1.61	-98.8	6.8	640	12.1	3.44
MW-14	10/16/2023	0.30	-119.9	6.8	2,148	12.7	4.90
	4/1/2024	0.65	-125.3	7.0	2,096	11.2	5.90
MW-15	10/18/2023	0.25	-76.3	7.2	1,335	16.1	9.50
	4/1/2024	0.76	-129.3	7.3	1,032	13.6	6.70

Notes:
mg/L -Milligrams per Liter.
mV - Millivolts.
SU - Standard Units.
umhos/cm - Micromhos per centimeter.
°C - Degrees Celsius.
NTU - Nephelometric Turbidity Unit

Table 3
Comparison of Appendix III Parameter Results to Background Limits – October 2023
Monroe Power Plant BAI Inactive CCR Unit - RCRA CCR Monitoring Program
Monroe, Michigan

Sample Location:		MW-1S		MW-2S		MW-3S		MW-7S		MW-9		MW-10	
Sample Date:		10/16/2023	PL	10/17/2023	PL	10/17/2023	PL	10/18/2023	PL	10/17/2023	PL	10/17/2023	PL
Constituent	Unit	Data		Data		Data		Data		Data		Data	
Appendix III													
Boron	ug/L	610	870	950	1,000	840	980	400	1,400	520	640	510	530
Calcium	ug/L	240,000	370,000	230,000	270,000	310,000	540,000	220,000	380,000	180,000	190,000	160,000	170,000
Chloride	mg/L	100	170	11	14	12	15	37	110	**67**[(1)]	59	56	80
Fluoride	mg/L	0.31	0.47	0.63	0.89	0.72	0.98	0.58	1.6	0.43	0.56	0.41	0.68
pH, Field	su	6.5	6.5 - 8.7	7.3	7.0 - 8.5	7.4	6.9 - 7.9	7.0	6.0 - 8.1	7.0	6.0 - 7.0	7.2	6.6 - 7.5
Sulfate	mg/L	82	850	1,200	1,600	1,200	1,400	**670**[(2)]	590	< 1	12	2.2	19
Total Dissolved Solids	mg/L	1,100	1,600	1,700	2,000	1,800	2,300	1,100	2,000	780	810	860	840

Notes:

ug/L - micrograms per liter.

mg/L - milligrams per liter.

SU - standard units; pH is a field parameter.

All metals were analyzed as total unless otherwise specified.

Bold font indicates an exceedance of the Prediction Limit (PL).

(1) - Exceedance was determined to be from an alternate source in the First 2023 Semiannual Alternate Source Demonstration dated 8/30/2023.

(2) - Exceedance was determined to be from an alternate source in the First 2020 Semiannual Alternate Source Demonstration dated 9/21/2020.

Table 3
Comparison of Appendix III Parameter Results to Background Limits – October 2023
Monroe Power Plant BAI Inactive CCR Unit - RCRA CCR Monitoring Program
Monroe, Michigan

Sample Location:		MW-11		MW-12		MW-13		MW-14		MW-15	
Sample Date:		10/17/2023	PL	10/16/2023	PL	10/16/2023	PL	10/16/2023	PL	10/18/2023	PL
Constituent	Unit	Data		Data		Data		Data		Data	
Appendix III											
Boron	ug/L	840	920	940	1,100	< 100	100	1,400	1,700	2,500	2,800
Calcium	ug/L	250,000	330,000	180,000	210,000	130,000	140,000	270,000	310,000	140,000	150,000
Chloride	mg/L	16	18	10	13	98	120	270	310	100	150
Fluoride	mg/L	0.92	1.2	0.86	0.91	0.38	0.51	0.44	0.57	0.44	0.64
pH, Field	su	7.3	6.9 - 7.5	7.4	7.4 - 7.9	7.0	6.2 - 7.7	6.8	6.8 - 7.3	7.2	6.9 - 7.4
Sulfate	mg/L	1,400	1,500	1,200	1,300	< 1	1.0	430	430	< 1	1.0
Total Dissolved Solids	mg/L	1,900	2,100	1,600	1,800	530	1,100	1,700	1,700	600	770

Notes:

ug/L - micrograms per liter.

mg/L - milligrams per liter.

SU - standard units; pH is a field parameter.

All metals were analyzed as total unless otherwise specified.

Bold font indicates an exceedance of the Prediction Limit (PL).

(1) - Exceedance was determined to be from an alternate source in the First 2023 Semiannual Alternate Source Demonstration dated 8/30/2023.

(2) - Exceedance was determined to be from an alternate source in the First 2020 Semiannual Alternate Source Demonstration dated 9/21/2020.

Table 4
Comparison of Appendix III Parameter Results to Background Limits – April 2024
Monroe Power Plant BAI Inactive CCR Unit - RCRA CCR Monitoring Program
Monroe, Michigan

Sample Location:		MW-1S		MW-2S		MW-3S		MW-7S		MW-9	
Sample Date:		4/1/2024	PL	4/1/2024	PL	4/1/2024	PL	4/1/2024	PL	4/1/2024	PL
Constituent	Unit	Data		Data		Data		Data		Data	
Appendix III											
Boron	ug/L	510	870	1,000	1,000	840	980	530	1,400	560	640
Calcium	ug/L	230,000	370,000	250,000	270,000	330,000	540,000	150,000	380,000	190,000	190,000
Chloride	mg/L	91	170	11	14	12	15	63	110	**73**[(1)]	59
Fluoride	mg/L	0.21	0.47	0.64	0.89	0.73	0.98	0.49	1.6	0.47	0.56
pH, Field	su	7.1	6.5 - 8.7	7.3	7.0 - 8.5	7.1	6.9 - 7.9	7.4	6.0 - 8.1	7.0	6.0 - 7.0
Sulfate	mg/L	100	850	1,300	1,600	1,200	1,400	250	590	1.9	12
Total Dissolved Solids	mg/L	910	1,600	1,800	2,000	1,800	2,300	680	2,000	780	810

Notes:
ug/L - micrograms per liter.
mg/L - milligrams per liter.
SU - standard units; pH is a field parameter.
All metals were analyzed as total unless otherwise specified.
Bold font indicates an exceedance of the Prediction Limit (PL).
(1) - Exceedance was determined to be from an alternate source in the First 2023 Semiannual Alternate Source Demonstration dated 8/30/2023.

Table 4
Comparison of Appendix III Parameter Results to Background Limits – April 2024
Monroe Power Plant BAI Inactive CCR Unit - RCRA CCR Monitoring Program
Monroe, Michigan

Sample Location:		MW-10		MW-11		MW-12		MW-13		MW-14		MW-15	
Sample Date:		4/1/2024	PL	4/1/2024	PL	4/1/2024	PL	4/1/2024	PL	4/1/2024	PL	4/1/2024	PL
Constituent	Unit	Data		Data		Data		Data		Data		Data	
Appendix III													
Boron	ug/L	480	530	850	920	1,000	1,100	< 100	100	1,500	1,700	2,600	2,800
Calcium	ug/L	160,000	170,000	240,000	330,000	190,000	210,000	130,000	140,000	270,000	310,000	140,000	150,000
Chloride	mg/L	63	80	16	18	10	13	99	120	250	310	110	150
Fluoride	mg/L	0.43	0.68	0.87	1.2	0.79	0.91	0.32	0.51	0.33	0.57	0.44	0.64
pH, Field	su	7.3	6.6 - 7.5	7.1	6.9 - 7.5	7.4	7.4 - 7.9	6.8	6.2 - 7.7	7.0	6.8 - 7.3	7.3	6.9 - 7.4
Sulfate	mg/L	3.3	19	1,400	1,500	1,100	1,300	< 1	1.0	400	430	< 1	1.0
Total Dissolved Solids	mg/L	810	840	2,000	2,100	1,700	1,800	540	1,100	1,600	1,700	640	770

Notes:
ug/L - micrograms per liter.
mg/L - milligrams per liter.
SU - standard units; pH is a field parameter.
All metals were analyzed as total unless otherwise specified.
Bold font indicates an exceedance of the Prediction Limit (PL).
(1) - Exceedance was determined to be from an alternate source in the First 2023 Semiannual Alternate Source Demonstration dated 8/30/2023.

Figures

BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.

N

1 " = 2,000 '
1:24,000

0 2,000 4,000
FEET

TRC
1540 Eisenhower Place
Ann Arbor, MI 48108-3284
Phone: 734.971.7080
TRC - GIS

PROJECT:
DTE ELECTRIC COMPANY
MONROE POWER PLANT BOTTOM ASH IMPOUNDMENT
3500 EAST FRONT STREET
MONROE, MI 48161

TITLE:
SITE LOCATION MAP

DRAWN BY:	A. ADAIR
CHECKED BY:	H. SCHNAIDT
APPROVED BY:	V. BUENING
DATE:	JUNE 2024
PROJ. NO.:	553931.0006
FILE:	June2024_553931.0006-001.mxd

FIGURE 1

T:\1-PROJECTS\DTE Energy\MonroeMI_PP\518728_0006\June2024_553931.0006-001.mxd -- Saved By: AADAIR on 6/10/2024, 10:37:02 AM

Plot Date: 6/10/2024, 10:41:11 AM by AADAIR -- LAYOUT: ANSI B (11"x17")
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Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet (Foot US)
Map Rotation: 0
TRC - GIS

LEGEND

- CCR PROGRAM MONITORING WELL
- INVESTIGATION MONITORING WELL
- UNIT SEPARATION BERM
- APPROXIMATE BOUNDARY OF INACTIVE BOTTOM ASH IMPOUNDMENT
- APPROXIMATE PLANT BOUNDARY

NOTES

1. BASE MAP IMAGERY FROM GOOGLE EARTH PRO & PARTNERS, (APRIL 2024).

N

1 " = 700 '
1:8,400

0 700 1,400 FEET

TRC
1540 Eisenhower Place
Ann Arbor, MI 48108-3284
Phone: 734.971.7080

PROJECT:
DTE ELECTRIC COMPANY
MONROE POWER PLANT BOTTOM ASH IMPOUNDMENT
3500 EAST FRONT STREET
MONROE, MI 48161

TITLE:
INACTIVE BOTTOM ASH IMPOUNDMENT WELL LOCATION MAP

DRAWN BY:	A. ADAIR
CHECKED BY:	H. SCHNAIDT
APPROVED BY:	V. BUENING
DATE:	JULY 2024
PROJ. NO.:	553931.0006
FILE:	June2024_553931.0006-002.mxd

FIGURE 2

Plot Date: 7/18/2024, 13:34:08 PM by AADAIR -- LAYOUT: ANSI B (11"x17")
Path: T:\1-PROJECTS\DTE Energy\MonroeMI_PP\518728_0006\Jan2024_518728.0006-003.mxd

Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet (Foot US)
Map Rotation: 0

TRC - GIS

Port Ave
Mcmillan St
E Front St
River Raisin
Discharge Canal
Plum Creek
Lake Erie
573'
574'
575'
MW-15 (572.87)
MW-7S (573.80)
MW-9 (574.05)
MW-10 (574.11)
MW-3S (573.90)
MW-11 (573.94)
MW-12 (573.98)
MW-2S (574.02)
MW-14 (574.98)
MW-1S (574.07)
MW-13 (572.75)
Lake Erie Surface Water Elevation (571.96)

NOTES

1. BASE MAP IMAGERY FROM GOOGLE EARTH PRO & PARTNERS, (4/17/2024).
2. LAKE ERIE SURFACE WATER ELEVATION MEASURED AT NOAA GAUGING STATION 9063090 NEAR THE DTE FERMI POWER PLANT, NEWPORT, MICHIGAN.
3. GROUNDWATER ELEVATIONS DISPLAYED IN FEET RELATIVE TO NORTH AMERICAN VERTICAL DATUM OF 1988.

LEGEND

- MONITORING WELL
- GROUNDWATER CONTOUR (DASHED WHERE INFERRED)
- UNIT SEPARATION BERM
- APPROXIMATE BOUNDARY OF INACTIVE BOTTOM ASH BASIN
- APPROXIMATE PLANT BOUNDARY

N

1 " = 700 '
1:8,400

0 700 1,400 FEET

TRC
1540 Eisenhower Place
Ann Arbor, MI 48108-3284
Phone: 734.971.7080

PROJECT:
DTE ELECTRIC COMPANY
MONROE POWER PLANT BOTTOM ASH IMPOUNDMENT
3500 EAST FRONT STREET
MONROE, MI 48161

TITLE:
GROUNDWATER CONTOUR MAP
OCTOBER 2023

DRAWN BY:	A. ADAIR
CHECKED BY:	H. SCHNAIDT
APPROVED BY:	BUENING
DATE:	JANUARY 2024
PROJ. NO.:	518728.0006
FILE:	Jan2024_518728.0006-003.mxd

FIGURE 3

Plot Date: 6/20/2024, 13:22:25 PM by AADAIR -- LAYOUT: ANSI B (11"x17")
Path: T:\1-PROJECTS\DTE Energy\MonroeMI_PP\518728_0006\June2024_553931.0006-103a.mxd
Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet (Foot US)
Map Rotation: 0
TRC - GIS

Port Ave
Mcmillan St
E Front St
River Raisin
Discharge Canal
Plum Creek
Lake Erie
573'
574'
575'
MW-15 (573.48)
MW-7S (574.30)
MW-9 (574.56)
MW-10 (574.63)
MW-3S (573.77)
MW-11 (573.55)
MW-12 (573.58)
MW-2S (573.59)
MW-14 (575.32)
MW-1S (573.78)
MW-13 (573.29)
Lake Erie Surface Water Elevation (572.38)

NOTES

1. BASE MAP IMAGERY FROM GOOGLE EARTH PRO & PARTNERS, APRIL 2024.
2. LAKE ERIE SURFACE WATER ELEVATION MEASURED AT NOAA GAUGING STATION 9063090 NEAR THE DTE FERMI POWER PLANT, NEWPORT, MICHIGAN.
3. GROUNDWATER ELEVATIONS DISPLAYED IN FEET RELATIVE TO NORTH AMERICAN VERTICAL DATUM OF 1988.

LEGEND

- MONITORING WELL
- GROUNDWATER CONTOUR (DASHED WHERE INFERRED)
- UNIT SEPARATION BERM
- APPROXIMATE BOUNDARY OF INACTIVE BOTTOM ASH BASIN
- APPROXIMATE PLANT BOUNDARY

N
1 " = 700 '
1:8,400
0 700 1,400 FEET

TRC
1540 Eisenhower Place
Ann Arbor, MI 48108-3284
Phone: 734.971.7080

PROJECT:
DTE ELECTRIC COMPANY
MONROE POWER PLANT BOTTOM ASH IMPOUNDMENT
3500 EAST FRONT STREET
MONROE, MI 48161

TITLE:
GROUNDWATER CONTOUR MAP
APRIL 2024

DRAWN BY:	A. ADAIR
CHECKED BY:	H. SCHNAIDT
APPROVED BY:	BUENING
DATE:	JULY 2024
PROJ. NO.:	553931.0006
FILE:	June2024_553931.0006-103a.mxd

FIGURE 4

Appendix A
August 2023 Alternative Source Demonstration

1540 Eisenhower Pl.
Ann Arbor, MI 48108

T 734.971.7080
TRCcompanies.com

August 30, 2023

Brett Coulter
Jackson District Office
Materials Management Division
Michigan Department of Environment, Great Lakes, and Energy
301 E. Louis Glick Hwy.
Jackson, MI 48161

Subject: Alternate Source Demonstration: First Semiannual 2023 Groundwater Sampling Event
Monroe Power Plant Bottom Ash Impoundment Inactive Coal Combustion Residual Unit
3500 East Front Street, Monroe, Michigan

Dear Mr. Coulter:

TRC was retained by DTE Electric Company (DTE Electric) to conduct routine groundwater monitoring activities at the Monroe Power Plant Bottom (MONPP) Bottom Ash Impoundment (BAI) inactive coal combustion residual (CCR) unit (the Site), located in Monroe, Michigan. Routine groundwater monitoring at the MONPP BAI Inactive CCR unit is conducted in accordance with the Michigan Department of Environment, Great Lakes, and Energy (EGLE)-approved *Hydrogeological Monitoring Plan* (MONPP BAI HMP) for the Site (TRC, June 30, 2020) and the United States Environmental Protection Agency (USEPA) final rule for the regulation and management of CCR under the Resource Conservation and Recovery Act (RCRA), as amended (the CCR Rule) (USEPA, April 2015).

As discussed in the *First Semiannual 2023 Groundwater Monitoring Report* for the Site (TRC, July 2023), the statistical evaluation of the April 2023 detection monitoring indicator parameters indicated potential statistically significant increases (SSIs) for:

- Chloride at MW-9 (62 mg/L with a PL of 59 mg/L).

Verification resampling for chloride at MW-9 from the April 2023 event was conducted on June 12, 2023 by TRC personnel. The verification result for chloride at MW-9 (69 mg/L) was above the PL (59 mg/L); therefore, the initial SSI for chloride at MW-9 is confirmed (Table 1). It should be noted that the detected concentration of chloride within groundwater at MW-9 is well below the National Secondary Drinking Water Regulations standard of 250 mg/L and is also well below all Michigan Part 201 groundwater generic cleanup criteria for chloride.

In accordance with §257.94(e)(2) and the HMP, DTE Electric may demonstrate that a source other than the CCR unit caused the SSI or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. This Alternate Source Demonstration (ASD) has been prepared to address the aforementioned chloride SSI at MW-9 identified in the April 2023 detection monitoring event. The results of this ASD show that the chloride SSI at MW-9 is not due to a release from the MONPP BAI Inactive CCR unit.

Background

The MONPP is located in Section 15, Township 7 South, Range 9 East, at 3500 East Front Street, Monroe in Monroe County, Michigan. The site location is shown in Figure 1. The MONPP BAI Inactive CCR unit is located within the southern portion of the MONPP parcel and is bounded by the MONPP facility to the north and northeast, Lake Erie to the southeast and south, and Plum Creek/the discharge canal to the west.

The bedrock in the site vicinity is overlain by approximately 40 to 50 feet of unconsolidated deposits of glacial origin. The deposits are comprised of two (2) distinct units: a hard glacial till immediately overlying bedrock and lacustrine (lakebed or lake shore) deposits which overlay the till unit. The till is comprised of highly compacted gray silty to sandy clay with some cobbles and boulders, and ranges from approximately 20 to 50 feet in thickness. The overlying lacustrine deposits are composed of 10 to 30 feet of fine-grained sand and silt with some soft clay except where there is a thin, discontinuous coarse sand unit at the base of the lacustrine sequence.

The detection monitoring well network for the MONPP BAI Inactive CCR unit consists of eleven monitoring wells that are screened in the uppermost aquifer. As discussed in the Stats Plan, intrawell statistical methods for the MONPP BAI Inactive CCR unit were selected based on the geology and hydrogeology at the Site (the variability in the presence of the sand unit aquifer across the site and the strong confined hydraulic pressure in the sand unit aquifer), in addition to other supporting lines of evidence that the aquifer is unaffected by the CCR unit (such as the consistency in concentrations of water quality data). Monitoring wells MW-1S through MW-3S, MW-7S, and MW-9 through MW-15 are located around the perimeter of the MONPP BAI and provide data on both background and downgradient groundwater quality that has not been affected by the CCR unit (total of eleven background/downgradient monitoring wells). The monitoring well locations are shown in Figure 2 and the first semiannual 2023 groundwater contour figure is included as Figure 3. The *Monitoring Well Installation Report Coal Combustion Residuals (CCR) Rule – Inactive Bottom Ash Impoundment DTE Monroe* (Well Installation Report) (AECOM, April 2019, Revised August 2019) details the groundwater monitoring system.

Alternate Source Demonstration

As discussed above, verification resampling for chloride at MW-9 was performed as recommended per the *Groundwater Statistical Evaluation Plan – Inactive Bottom Ash Impoundment* (Stats Plan) (AECOM, April 2019, Revised April 2020) and the *USEPA's Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance* (Unified Guidance) (USEPA, 2009) to achieve performance standards as specified in the HMP and by §257.93(g) in the CCR Rule. The June 2023 verification resampling confirmed the chloride exceedance at MW-9 (Table 1). The following discussion presents the ASD for the confirmed prediction limit exceedance.

Chloride at MW-9

The SSI of chloride in the groundwater at MW-9, shown on Table 1, is due to natural variability in groundwater quality and not a release of CCR constituents from the MONPP BAI CCR unit. The lines of evidence provided in support of this conclusion are as follows:

Limited background sampling timeline to account for temporal variability – Groundwater is transient by nature and is subject to natural temporal changes in chemistry that occur over time. The chloride SSI observed at MW-9 is slightly above the prediction limit as shown in (Figure 4). The short duration of the background data collection timeline limits the ability of the statistical analysis to capture the natural temporal trends in the groundwater quality at the MONPP BAI. This limited temporal variability can only be corrected with the collection of additional groundwater data, and the inclusion of the additional data in the background data set updated in the future.

Lack of similar increase in other indicator parameters – The lack of SSIs for any other parameters within the same monitoring well, and across the other wells within the monitoring well network, also suggests a source other than the CCR unit for the observed chloride SSI at this location.

Spatial variability in groundwater quality – Chloride concentrations vary considerably across the MONPP BAI well network. The chloride concentrations observed in the MONPP BAI well network between 2017 and 2023 ranged from 7.9 mg/L to 313 mg/L. The chloride concentrations observed at MW-9 (62 mg/L) during the April 2023 detection monitoring event and during the June 2023 verification event (69 mg/L) are only slightly above the prediction limit (59 mg/L) and are well within the range of 7.9 mg/L to 313 mg/L observed across the entire monitoring network (Figure 5).

Regional groundwater quality – Groundwater in the region surrounding the MONPP BAI shows variability in chloride concentrations. Regional United States Geological Survey (USGS) monitoring wells in Monroe County show a range of chloride concentrations from 0.7 mg/L to 600 mg/L (USGS 2016, Attachment 1). The SSI concentration of chloride measured in MW-9 during the April 2023 detection monitoring event was 62 mg/L and for the June 2023 verification event was 69 mg/L. These chloride concentrations at MW-9 are well within the range of regional variation near the MONPP BAI Inactive CCR unit. The USGS historical chloride data is included in Attachment 2.

Conclusions and Recommendations

The information provided in this report serves as the ASD for the DTE Electric MONPP BAI Inactive CCR unit, and was prepared in accordance with 40 CFR 257.94(e)(2) of the CCR Rule and the MONPP BAI HMP. This ASD demonstrates that the chloride SSI from the first semiannual 2023 groundwater monitoring event is due to variability of background groundwater quality and is not due to a release of CCR related constituents into the groundwater from the MONPP BAI Inactive CCR unit. Therefore, based on the information provided in this ASD, DTE Electric plans to continue detection monitoring as per 40 CFR 257.94 and the MONPP BAI HMP at the MONPP BAI Inactive CCR unit.

Signatures and Certifications

Engineer Certification Statement

I hereby certify that the alternative source demonstration presented within this document for the MONPP BAI Inactive CCR unit has been prepared to meet the requirements of Title 40 CFR §257.94(e)(2) of the Federal CCR Rule and the June 30, 2020 Hydrogeological Monitoring Plan (HMP). This document is accurate and has been prepared in accordance with good engineering practices, including the consideration of applicable industry standards, and with the requirements of Title 40 CFR §257.94(e)(2) and the HMP.

Name: David B. McKenzie, P.E.	Expiration Date: December 23, 2023	
Company: TRC Engineers Michigan, Inc.	Date: August 30, 2023	

In addition, the signature below certifies that this letter report was prepared under the direction of a qualified groundwater scientist in accordance with the EGLE-approved HMP and the Stats Plan. A copy of this report will be placed in the facility file.

Sincerely,

TRC

Vincent E Buening, C.P.G
Sr. Project Manager

Sarah B. Holmstrom, P.G
Senior Hydrogeologist

cc: Christopher P. Scieszka, DTE Electric Company

Attachments

Table

Table 1
Comparison of Groundwater Detection Parameter Results to Background Limits – April and June 2023
Monroe Power Plant BAI Inactive CCR Unit
Monroe, Michigan

Sample Location:		MW-1S		MW-2S			MW-3S			MW-7S		MW-9		
Sample Date:		4/3/2023	PL	4/4/2023	6/12/2023	PL	4/3/2023	6/12/2023	PL	4/4/2023	PL	4/3/2023	6/12/2023	PL
Constituent	Unit	Data		Data			Data			Data		Data		
Appendix III														
Boron	ug/L	200	870	**1,100**	1,000	1,000	970	--	980	150	1,400	580	--	640
Calcium	ug/L	100,000	370,000	230,000	--	270,000	**550,000**	280,000	540,000	97,000	380,000	170,000	--	190,000
Chloride	mg/L	9.4	170	11	--	14	12	--	15	7.9	110	**62**	**69**	**59**
Fluoride	mg/L	0.14	0.47	0.61	--	0.89	0.71	--	0.98	0.48	1.6	0.45	--	0.56
pH, Field	su	7.4	6.5 - 8.7	7.6	--	7.0 - 8.5	7.4	--	6.9 - 7.9	7.6	6.0 - 8.1	6.9	--	6.0 - 7.0
Sulfate	mg/L	99	850	1,300	--	1,600	1,200	--	1,400	270	590	< 1	--	12
Total Dissolved Solids	mg/L	400	1,600	1,800	--	2,000	1,800	--	2,300	500	2,000	760	--	810
Part 115 Parameters														
Iron	ug/L	5,200	n<8	2,500	--	n<8	69,000	--	n<8	360	n<8	2,900	--	n<8

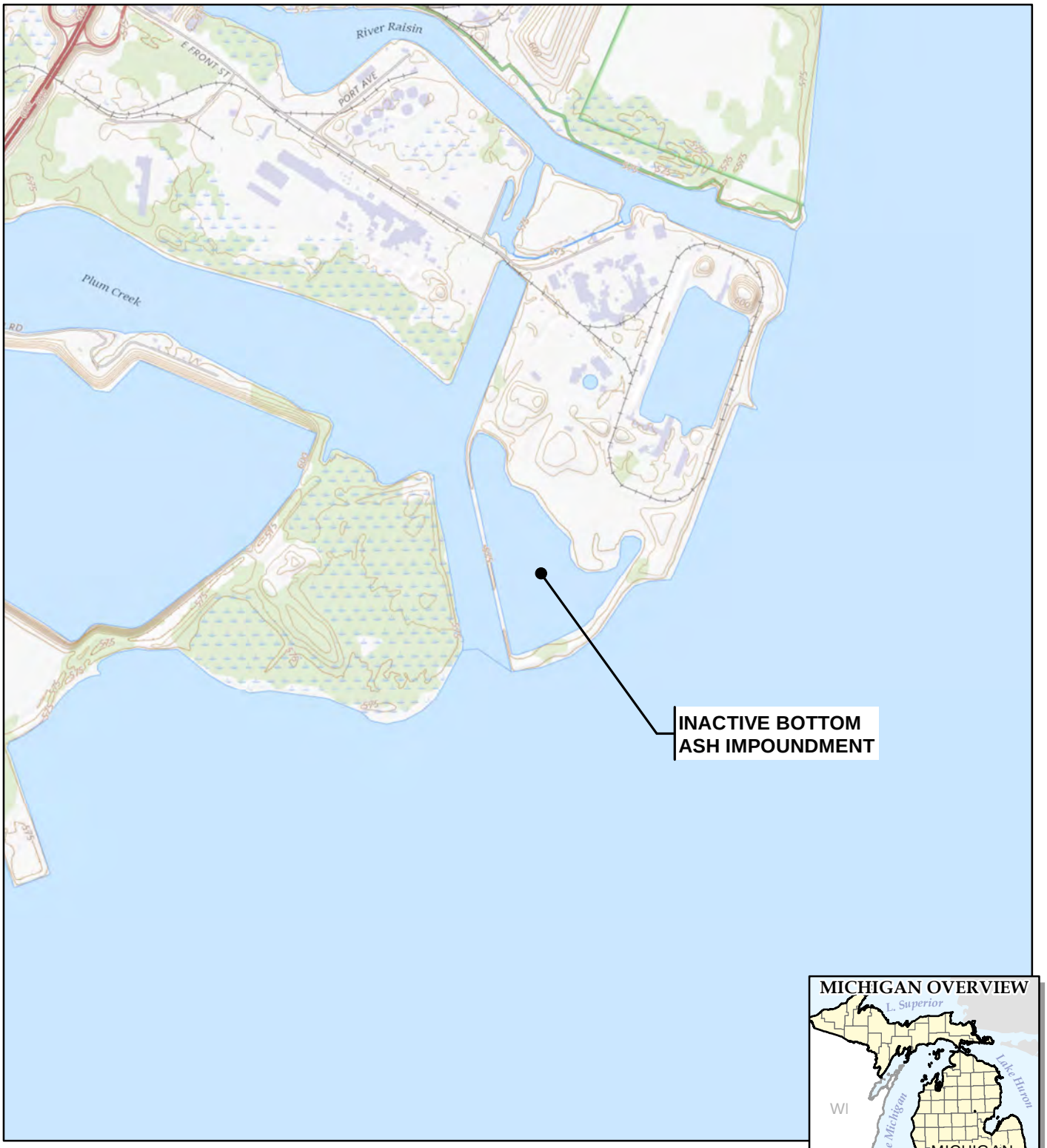
Notes:
ug/L - micrograms per liter.
mg/L - milligrams per liter.
SU - standard units; pH is a field parameter.
-- = not analyzed
All metals were analyzed as total unless otherwise specified.
Bold font indicates an exceedance of the Prediction Limit (PL).
RESULT Shading and bold font indicates a confirmed exceedance of the Prediction Limit (PL).
(1) Exceedance was determined to be from an alternate source in the Alternative Source Demonstration: 2020 Second Semiannual Detection Monitoring Sampling Event Monroe Power Plant Bottom Ash Impoundment Inactive Coal Combustion Residual Unit dated March 18, 2021.

Table 1
Comparison of Groundwater Detection Parameter Results to Background Limits – April and June 2023
Monroe Power Plant BAI Inactive CCR Unit
Monroe, Michigan

Sample Location:		MW-10		MW-11		MW-12		MW-13		MW-14		MW-15	
Sample Date:		4/3/2023	PL	4/4/2023	PL	4/4/2023	PL	4/4/2023	PL	4/3/2023	PL	4/4/2023	PL
Constituent	Unit	Data		Data		Data		Data		Data		Data	
Appendix III													
Boron	ug/L	**560**(1)	530	**940**(1)	920	1,000	1,100	< 100	100	1,600	1,700	2,700	2,800
Calcium	ug/L	150,000	170,000	240,000	330,000	170,000	210,000	120,000	140,000	270,000	310,000	140,000	150,000
Chloride	mg/L	56	80	15	18	9.7	13	95	120	260	310	110	150
Fluoride	mg/L	0.4	0.68	0.8	1.2	0.71	0.91	0.3	0.51	0.29	0.57	0.45	0.64
pH, Field	su	7.1	6.6 - 7.5	7.3	6.9 - 7.5	7.6	7.4 - 7.9	7.1	6.2 - 7.7	7.1	6.8 - 7.3	7.3	6.9 - 7.4
Sulfate	mg/L	11	19	1,400	1,500	1,100	1,300	< 1	1.0	400	430	< 1	1.0
Total Dissolved Solids	mg/L	800	840	1,900	2,100	1,600	1,800	530	1,100	1,600	1,700	650	770
Part 115 Parameters													
Iron	ug/L	< 100	n<8	2,100	n<8	1,300	n<8	9,300	n<8	6,700	n<8	9,800	n<8

Notes:
ug/L - micrograms per liter.
mg/L - milligrams per liter.
SU - standard units; pH is a field parameter.
-- = not analyzed
All metals were analyzed as total unless otherwise specified.
Bold font indicates an exceedance of the Prediction Limit (PL).
RESULT Shading and bold font indicates a confirmed exceedance of the Prediction Limit (PL).
(1) Exceedance was determined to be from an alternate source in the Alternative Source Demonstration: 2020 Second Semiannual Detection Monitoring Sampling Event Monroe Power Plant Bottom Ash Impoundment Inactive Coal Combustion Residual Unit dated March 18, 2021.

Figures



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.

N

1 " = 2,000 '
1:24,000

0 2,000 4,000
FEET

TRC

1540 Eisenhower Place
Ann Arbor, MI 48108-3284
Phone: 734.971.7080

TRC - GIS

PROJECT:

DTE ELECTRIC COMPANY
MONROE POWER PLANT BOTTOM ASH IMPOUNDMENT
3500 EAST FRONT STREET
MONROE, MI 48161

TITLE:

SITE LOCATION MAP

DRAWN BY:	A. ADAIR
CHECKED BY:	B. YELEN
APPROVED BY:	V. BUENING
DATE:	JULY 2023
PROJ. NO.:	518728.0006.0000
FILE:	Oct2022_518728.0006-001.mxd

FIGURE 1

S:\1-PROJECTS\DTE_Energy\MonroeMI_PP\413591_0006_Area15\Oct2022_518728.0006-001.mxd -- Saved By: EDOUMA on 5/30/2023, 09:59:28 AM

Plot Date: 5/30/2023, 09:56:52 AM by EDOUMA -- LAYOUT: ANSI B (11"x17")
Path: S:\1-PROJECTS\DTE_Energy\MonroeMI_PP\413591_0006_Area15\Oct2022_518728.0006-002.mxd

Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet (Foot US)
Map Rotation: 0

TRC - GIS

LEGEND

- CCR PROGRAM MONITORING WELL
- INVESTIGATION MONITORING WELL (STATIC WATER LEVELS ONLY)
- UNIT SEPARATION BERM
- APPROXIMATE BOUNDARY OF INACTIVE BOTTOM ASH IMPOUNDMENT
- APPROXIMATE PLANT BOUNDARY

NOTES

1. BASE MAP IMAGERY FROM GOOGLE EARTH PRO & PARTNERS, (MARCH 2021).

N

1 " = 700 '
1:8,400

0 700 1,400
FEET

TRC
1540 Eisenhower Place
Ann Arbor, MI 48108-3284
Phone: 734.971.7080

PROJECT:
DTE ELECTRIC COMPANY
MONROE POWER PLANT BOTTOM ASH IMPOUNDMENT
3500 EAST FRONT STREET
MONROE, MI 48161

TITLE:
INACTIVE BOTTOM ASH IMPOUNDMENT WELL LOCATION MAP

DRAWN BY:	A. ADAIR
CHECKED BY:	B. YELEN
APPROVED BY:	V. BUENING
DATE:	JULY 2023
PROJ. NO.:	518728.006.0000
FILE:	Oct2022_518728.0006-002.mxd

FIGURE 2

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Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet (Foot US)
Map Rotation: 0
TRC - GIS

LEGEND

- MONITORING WELL
- GROUNDWATER CONTOUR (DASHED WHERE INFERRED)
- UNIT SEPARATION BERM
- APPROXIMATE BOUNDARY OF INACTIVE BOTTOM ASH BASIN
- APPROXIMATE PLANT BOUNDARY

NOTES

1. BASE MAP IMAGERY FROM GOOGLE EARTH PRO & PARTNERS, MARCH 2021.
2. LAKE ERIE SURFACE WATER ELEVATION MEASURED AT NOAA GAUGING STATION 9063090 NEAR THE DTE FERMI POWER PLANT, NEWPORT, MICHIGAN.

N

1 " = 700 '
1:8,400

0 700 1,400 FEET

TRC
1540 Eisenhower Place
Ann Arbor, MI 48108-3284
Phone: 734.971.7080

PROJECT:
DTE ELECTRIC COMPANY
MONROE POWER PLANT BOTTOM ASH IMPOUNDMENT
3500 EAST FRONT STREET
MONROE, MI 48161

TITLE:
GROUNDWATER CONTOUR MAP
APRIL 2023

DRAWN BY:	A. ADAIR
CHECKED BY:	B. YELEN
APPROVED BY:	BUENING
DATE:	JULY 2023
PROJ. NO.:	461816.0006
FILE:	Apr2023_461816.0006-004.mxd

FIGURE 3

Figure 4
DTE Monroe Power Plant Bottom Ash Impoundment Inactive CCR Unit
MW-9 Chloride Time-Series

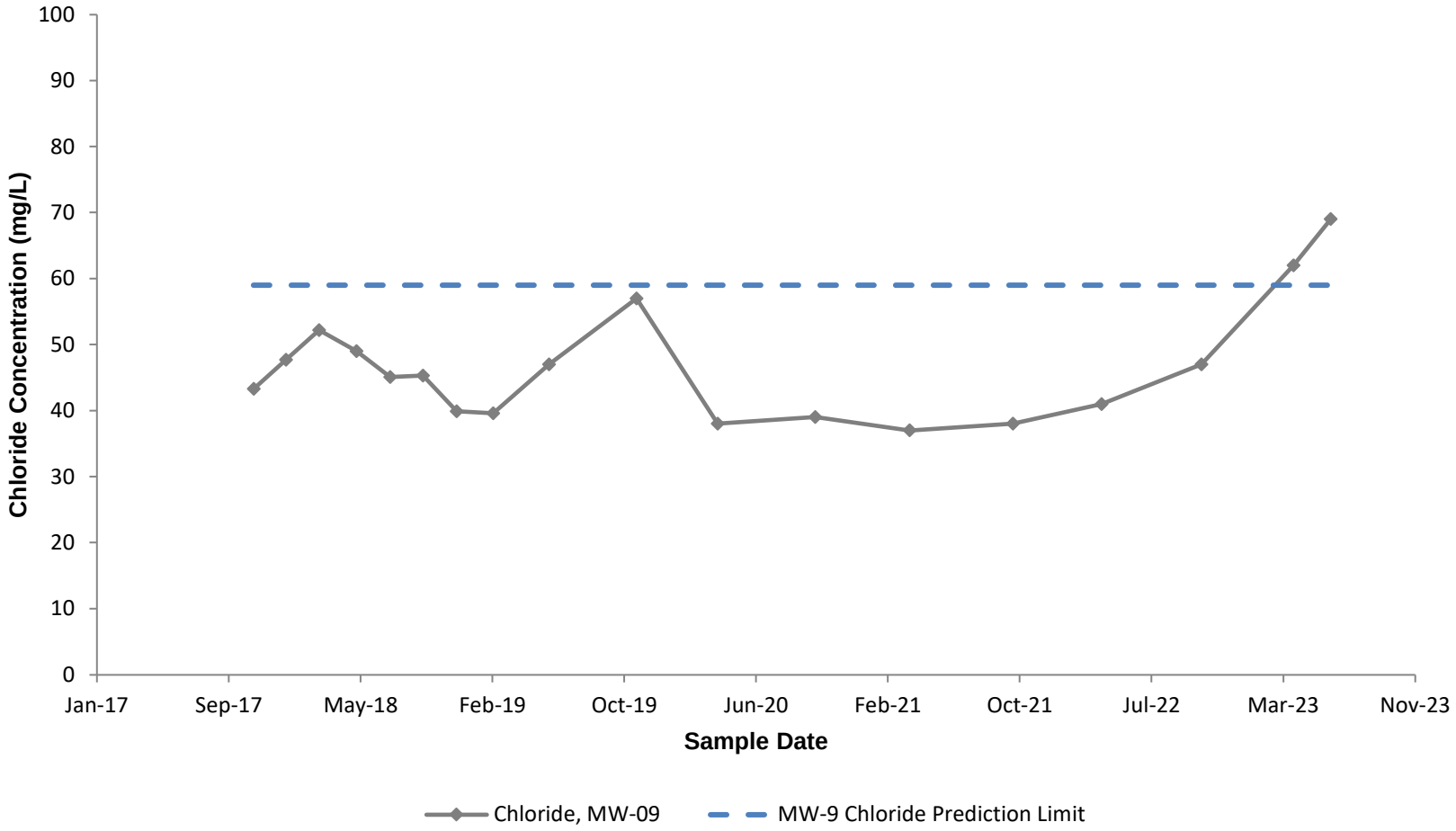
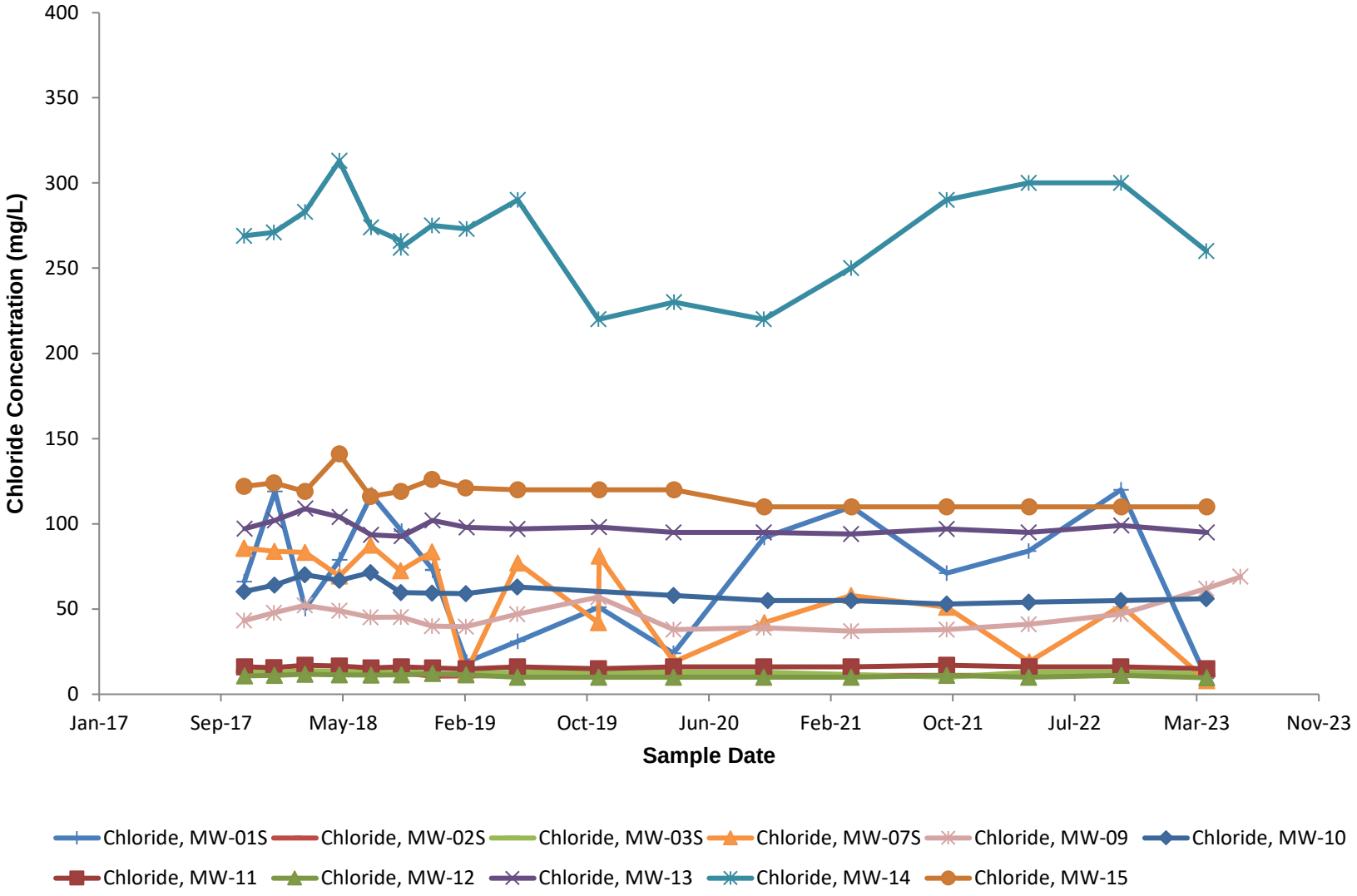


Figure 5
DTE Monroe Power Plant Bottom Ash Impoundment Inactive CCR Unit
Chloride Time-Series



Attachment 1
References

References

AECOM. September 2017. Groundwater Monitoring Work Plan Coal Combustion Residuals (CCR) Rule – Inactive Bottom Ash Basin, DTE Monroe Plant, Monroe, Michigan. Prepared for DTE Electric Company.

AECOM. April 2019, Revised August 2019. Monitoring Well Installation Report Coal Combustion Residuals (CCR) Rule – Inactive Bottom Ash Impoundment, DTE Monroe Plant, Monroe, Michigan. Prepared for DTE Electric Company.

AECOM. April 2019, Revised April 2020. Revised Groundwater Statistical Evaluation Plan – Inactive Bottom Ash Impoundment, DTE Monroe Plant, Monroe, Michigan. Prepared for DTE Electric Company.

TRC. June 30, 2020. Hydrogeological Monitoring Plan for the DTE Electric Company Monroe Power Bottom Ash Impoundment, 3500 East Front Street, Monroe, Michigan. Prepared for DTE Electric Company.

TRC. July 2023. First Semiannual 2023 Groundwater Monitoring Report prepared for the DTE Electric Company Monroe Power Plant Bottom Ash Impoundment Coal Combustion Residual Units, 3500 East Front Street, Monroe, Michigan. Prepared for DTE Electric Company.

USEPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA facilities, Unified Guidance. Office of Conservation and Recovery. EPA 530/R-09-007.

U.S. Geological Survey. 2016. National Water Information System data available on the World Wide Web (USGS Water Data for the Nation), accessed July 19, 2023, at URL http://waterdata.usgs.gov/nwis/qwdata.

Attachment 2
USGS Historical Chloride Analytical Data

USGS Michigan Water Science Center Chloride Groundwater Data
Monroe County, Michigan

Location	Sample Date	Sample Time	Result Identifier	Chloride Concentration (mg/L - dissolved)
USGS-415344083422201	1961-03-01	--	NWIS-60967431	6.0
USGS-420445083405601	1967-10-31	--	NWIS-60996038	12.0
USGS-420432083410601	1967-10-31	--	NWIS-60996009	8.0
USGS-420452083410101	1967-10-31	--	NWIS-60996063	27.0
USGS-420459083405401	1967-10-31	--	NWIS-60996090	51.0
USGS-415344083422101	1971-08-18	--	NWIS-61027519	8.0
USGS-415030083331001	1971-08-19	--	NWIS-61027299	15.0
USGS-415950083232001	1971-08-19	--	NWIS-61027644	12.0
USGS-415355083324001	1971-08-19	--	NWIS-61027554	22.0
USGS-420040083241001	1971-08-20	--	NWIS-61027700	2.0
USGS-420300083223001	1971-08-19	--	NWIS-61027829	160
USGS-420040083302001	1971-08-19	--	NWIS-61027727	24.0
USGS-420500083284001	1971-08-18	--	NWIS-61027933	41.0
USGS-420140083332001	1971-09-02	--	NWIS-61027802	2.0
USGS-420320083354001	1971-08-19	--	NWIS-61027863	5.0
USGS-420120083311001	1971-08-18	--	NWIS-61027779	16.0
USGS-415155083452001	1971-08-19	--	NWIS-61027395	6.0
USGS-415630083365001	1971-08-20	--	NWIS-61027576	64.0
USGS-415115083291001	1971-08-19	--	NWIS-61027326	80.0
USGS-415850083365001	1971-08-20	--	NWIS-61027596	9.0
USGS-415930083261001	1971-08-18	--	NWIS-61027617	5.0
USGS-420100083365001	1971-08-20	--	NWIS-61027758	5.0
USGS-420000083232001	1971-08-18	--	NWIS-61027679	4.0
USGS-415206083414401	1979-08-09	10:50:00	NWIS-61213478	0.7
USGS-415206083414401	1984-12-11	16:00:00	NWIS-61350122	1.1
USGS-415435083342601	1986-08-29	09:45:00	NWIS-61373774	47.0
USGS-415753083413601	1986-09-03	14:00:00	NWIS-61373983	8.5
USGS-415305083234501	1986-09-03	11:00:00	NWIS-61384002	9.4
USGS-414829083345601	1991-10-29	14:45:00	NWIS-61464303	120
USGS-414731083450101	1991-10-29	10:30:00	NWIS-61464482	150
USGS-415839083221501	1991-11-05	11:00:00	NWIS-61466577	22.0
USGS-420314083225501	1991-11-05	15:00:00	NWIS-61465815	600
USGS-414452083385201	1991-10-29	13:30:00	NWIS-61464430	12.0
USGS-420325083440901	1991-10-30	12:30:00	NWIS-61464534	21.0
USGS-420425083270001	1991-11-05	13:30:00	NWIS-61465971	54.0
USGS-415431083343201	1991-10-30	09:45:00	NWIS-61464251	29.0
USGS-420248083372601	1991-11-04	12:00:00	NWIS-61465919	3.6
USGS-420414083351501	1991-11-04	14:00:00	NWIS-61465867	2.6
USGS-420218083130401	1992-04-27	13:00:00	NWIS-61469968	80.0
USGS-420107083403201	1992-04-28	10:00:00	NWIS-61470077	12.0
USGS-414509083291001	1992-04-28	14:30:00	NWIS-61470458	36.0
USGS-415244083415201	1992-04-29	09:30:00	NWIS-61470730	6.4
USGS-415721083331601	1992-04-28	13:15:00	NWIS-61470133	1.1
USGS-420246083285901	1992-05-20	12:00:00	NWIS-61472750	6.6
USGS-414601083375801	1992-04-28	17:00:00	NWIS-61470405	12.0
USGS-415754083420901	1992-05-19	12:00:00	NWIS-61472852	11.0
USGS-420123083300001	1992-05-05	12:00:00	NWIS-61472242	8.6
USGS-420055083175601	1992-04-27	15:00:00	NWIS-61470021	23.0
USGS-414559083325501	1992-05-06	16:00:00	NWIS-61472293	1.7
USGS-415437083413001	1992-01-23	13:10:00	NWIS-61467810	4.6
USGS-415527083402001	1992-01-23	11:45:00	NWIS-61467758	13.0
USGS-414854083382201	1992-05-19	15:30:00	NWIS-61472650	17.0
USGS-415923083272101	1992-04-28	15:30:00	NWIS-61470189	58.0
USGS-415400083262801	1992-05-20	10:00:00	NWIS-61472699	36.0
USGS-414353083422801	1992-05-19	14:00:00	NWIS-61472801	38.0
USGS-415133083274801	1992-01-23	16:45:00	NWIS-61467914	3.9
USGS-415824083162901	1992-05-06	12:30:00	NWIS-61472497	64.0
USGS-415204083323101	1992-05-19	16:30:00	NWIS-61472599	9.7
USGS-415749083282001	1992-05-07	10:00:00	NWIS-61472344	5.9
USGS-415236083365401	1992-01-23	15:15:00	NWIS-61467862	62.0
USGS-415228083242401	1992-05-06	14:30:00	NWIS-61472395	6.8
USGS-420503083192101	1992-05-05	15:00:00	NWIS-61472548	43.0
USGS-415115083400201	1992-04-29	12:00:00	NWIS-61470350	1.5
USGS-414748083305501	1992-04-28	12:45:00	NWIS-61470511	11.0
USGS-415234083413801	1992-04-29	09:45:00	NWIS-61470673	4.2
USGS-415648083405601	1992-01-23	10:15:00	NWIS-61467706	8.7
USGS-415156083441501	1992-04-29	12:00:00	NWIS-61470297	6.5
USGS-420123083213801	1992-05-06	10:30:00	NWIS-61472446	8.2
USGS-415710083192501	1992-04-28	09:15:00	NWIS-61470242	22.0

Appendix B
Laboratory Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Vincent Buening
TRC Environmental Corporation.
1540 Eisenhower Place
Ann Arbor, Michigan 48108-7080

Generated 12/5/2023 8:43:13 AM Revision 1

JOB DESCRIPTION

CCR DTE MPP Bottom Ash Impoundment

JOB NUMBER

240-193887-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Generated
12/5/2023 8:43:13 AM
Revision 1

Authorized for release by
Kris Brooks, Project Manager II
Kris.Brooks@et.eurofinsus.com
(330)966-9790

Table of Contents

Definitions/Glossary

Client: TRC Environmental Corporation. Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Qualifiers

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-193887-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative
240-193887-1

REVISION

The report being provided is a revision of the original report sent on 10/31/2023. The report (revision 1) is being revised to report the data to the RL only.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/19/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.3°C and 0.8°C

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 9056A_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with analytical batch 240-592107 were outside control limits: (240-193887-B-13 MS) and (240-193887-B-13 MSD). The associated laboratory control sample (LCS) recovery met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: TRC Environmental Corporation. Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
9056A	Anions, Ion Chromatography	SW846	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: TRC Environmental Corporation.
Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-193887-1	MW-1S	Water	10/16/23 11:24	10/19/23 08:00
240-193887-2	MW-2S	Water	10/17/23 07:22	10/19/23 08:00
240-193887-3	MW-3S	Water	10/17/23 09:45	10/19/23 08:00
240-193887-4	MW-7S	Water	10/18/23 07:33	10/19/23 08:00
240-193887-5	MW-9	Water	10/17/23 12:37	10/19/23 08:00
240-193887-6	MW-10	Water	10/17/23 11:16	10/19/23 08:00
240-193887-7	MW-11	Water	10/17/23 08:28	10/19/23 08:00
240-193887-8	MW-12	Water	10/16/23 12:45	10/19/23 08:00
240-193887-9	MW-13	Water	10/16/23 12:11	10/19/23 08:00
240-193887-10	MW-14	Water	10/16/23 09:13	10/19/23 08:00
240-193887-11	MW-15	Water	10/18/23 08:14	10/19/23 08:00
240-193887-12	DUP-01	Water	10/16/23 00:00	10/19/23 08:00
240-193887-13	MW-8S	Water	10/18/23 09:49	10/19/23 08:00

Detection Summary

Client: TRC Environmental Corporation. Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Client Sample ID: MW-1S — Lab Sample ID: 240-193887-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	610		100		ug/L	1		6010D	Total Recoverable
Calcium	240000		1000		ug/L	1		6020B	Total Recoverable
Iron	3900		100		ug/L	1		6020B	Total Recoverable
Chloride	100		1.0		mg/L	1		9056A	Total/NA
Fluoride	0.31		0.050		mg/L	1		9056A	Total/NA
Sulfate	82		1.0		mg/L	1		9056A	Total/NA
Total Dissolved Solids	1100		20		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-2S — Lab Sample ID: 240-193887-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	950		100		ug/L	1		6010D	Total Recoverable
Calcium	230000		1000		ug/L	1		6020B	Total Recoverable
Iron	2400		100		ug/L	1		6020B	Total Recoverable
Chloride	11		1.0		mg/L	1		9056A	Total/NA
Fluoride	0.63		0.050		mg/L	1		9056A	Total/NA
Sulfate	1200		20		mg/L	20		9056A	Total/NA
Total Dissolved Solids	1700		20		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-3S — Lab Sample ID: 240-193887-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	840		100		ug/L	1		6010D	Total Recoverable
Boron	790		100		ug/L	1		6010D	Dissolved
Calcium	310000		1000		ug/L	1		6020B	Total Recoverable
Iron	7900		100		ug/L	1		6020B	Total Recoverable
Calcium	210000		1000		ug/L	1		6020B	Dissolved
Iron	1800		100		ug/L	1		6020B	Dissolved
Chloride	12		1.0		mg/L	1		9056A	Total/NA
Fluoride	0.72		0.050		mg/L	1		9056A	Total/NA
Sulfate	1200		10		mg/L	10		9056A	Total/NA
Total Dissolved Solids	1800		20		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-7S — Lab Sample ID: 240-193887-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	400		100		ug/L	1		6010D	Total Recoverable
Calcium	220000		1000		ug/L	1		6020B	Total Recoverable
Chloride	37		1.0		mg/L	1		9056A	Total/NA
Fluoride	0.58		0.050		mg/L	1		9056A	Total/NA
Sulfate	670		5.0		mg/L	5		9056A	Total/NA
Total Dissolved Solids	1100		10		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: TRC Environmental Corporation. Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Client Sample ID: MW-9 Lab Sample ID: 240-193887-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	520		100		ug/L	1		6010D	Total Recoverable
Calcium	180000		1000		ug/L	1		6020B	Total Recoverable
Iron	3100		100		ug/L	1		6020B	Total Recoverable
Chloride	67		1.0		mg/L	1		9056A	Total/NA
Fluoride	0.43		0.050		mg/L	1		9056A	Total/NA
Total Dissolved Solids	780		10		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-10 Lab Sample ID: 240-193887-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	510		100		ug/L	1		6010D	Total Recoverable
Calcium	160000		1000		ug/L	1		6020B	Total Recoverable
Chloride	56		1.0		mg/L	1		9056A	Total/NA
Fluoride	0.41		0.050		mg/L	1		9056A	Total/NA
Sulfate	2.2		1.0		mg/L	1		9056A	Total/NA
Total Dissolved Solids	860		10		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-11 Lab Sample ID: 240-193887-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	840		100		ug/L	1		6010D	Total Recoverable
Calcium	250000		1000		ug/L	1		6020B	Total Recoverable
Iron	1700		100		ug/L	1		6020B	Total Recoverable
Chloride	16		1.0		mg/L	1		9056A	Total/NA
Fluoride	0.92		0.050		mg/L	1		9056A	Total/NA
Sulfate	1400		10		mg/L	10		9056A	Total/NA
Total Dissolved Solids	1900		20		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-12 Lab Sample ID: 240-193887-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	940		100		ug/L	1		6010D	Total Recoverable
Calcium	180000		1000		ug/L	1		6020B	Total Recoverable
Iron	2600		100		ug/L	1		6020B	Total Recoverable
Chloride	10		1.0		mg/L	1		9056A	Total/NA
Fluoride	0.86		0.050		mg/L	1		9056A	Total/NA
Sulfate	1200		20		mg/L	20		9056A	Total/NA
Total Dissolved Solids	1600		20		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-13 Lab Sample ID: 240-193887-9

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Calcium	130000		1000		ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-13 (Continued) — Lab Sample ID: 240-193887-9

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	9900		100		ug/L	1		6020B	Total Recoverable
Chloride	98		1.0		mg/L	1		9056A	Total/NA
Fluoride	0.38		0.050		mg/L	1		9056A	Total/NA
Total Dissolved Solids	530		10		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-14 — Lab Sample ID: 240-193887-10

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	1400		100		ug/L	1		6010D	Total Recoverable
Calcium	270000		1000		ug/L	1		6020B	Total Recoverable
Iron	6400		100		ug/L	1		6020B	Total Recoverable
Chloride	270		10		mg/L	10		9056A	Total/NA
Fluoride	0.44		0.050		mg/L	1		9056A	Total/NA
Sulfate	430		10		mg/L	10		9056A	Total/NA
Total Dissolved Solids	1700		20		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-15 — Lab Sample ID: 240-193887-11

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	2500		100		ug/L	1		6010D	Total Recoverable
Calcium	140000		1000		ug/L	1		6020B	Total Recoverable
Iron	9100		100		ug/L	1		6020B	Total Recoverable
Chloride	100		1.0		mg/L	1		9056A	Total/NA
Fluoride	0.44		0.050		mg/L	1		9056A	Total/NA
Total Dissolved Solids	600		10		mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 240-193887-12

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	1400		100		ug/L	1		6010D	Total Recoverable
Calcium	270000		1000		ug/L	1		6020B	Total Recoverable
Iron	6400		100		ug/L	1		6020B	Total Recoverable
Chloride	280		10		mg/L	10		9056A	Total/NA
Fluoride	0.37		0.050		mg/L	1		9056A	Total/NA
Sulfate	440		10		mg/L	10		9056A	Total/NA
Total Dissolved Solids	1600		20		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-8S — Lab Sample ID: 240-193887-13

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	400		100		ug/L	1		6010D	Total Recoverable
Calcium	340000		1000		ug/L	1		6020B	Total Recoverable
Iron	4700		100		ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-8S (Continued) Lab Sample ID: 240-193887-13

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	16		10		mg/L	10		9056A	Total/NA
Fluoride	1.5		0.50		mg/L	10		9056A	Total/NA
Sulfate	1600	F1	10		mg/L	10		9056A	Total/NA
Total Dissolved Solids	2000		20		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: TRC Environmental Corporation. Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Client Sample ID: MW-1S
Lab Sample ID: 240-193887-1
Date Collected: 10/16/23 11:24
Matrix: Water
Date Received: 10/19/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	610		100		ug/L		10/21/23 08:00	10/23/23 23:16	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	240000		1000		ug/L		10/21/23 08:00	10/24/23 18:56	1
Iron	3900		100		ug/L		10/21/23 08:00	10/24/23 18:56	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	100		1.0		mg/L			10/25/23 02:04	1
Fluoride (SW846 9056A)	0.31		0.050		mg/L			10/25/23 02:04	1
Sulfate (SW846 9056A)	82		1.0		mg/L			10/25/23 02:04	1
Total Dissolved Solids (SM 2540C)	1100		20		mg/L			10/23/23 11:13	1

Client: TRC Environmental Corporation.
Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Client Sample ID: MW-2S
Lab Sample ID: 240-193887-2
Date Collected: 10/17/23 07:22
Matrix: Water
Date Received: 10/19/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	950		100		ug/L		10/21/23 08:00	10/23/23 23:21	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	230000		1000		ug/L		10/21/23 08:00	10/24/23 18:59	1
Iron	2400		100		ug/L		10/21/23 08:00	10/24/23 18:59	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	11		1.0		mg/L			10/25/23 20:28	1
Fluoride (SW846 9056A)	0.63		0.050		mg/L			10/25/23 20:28	1
Sulfate (SW846 9056A)	1200		20		mg/L			10/29/23 12:16	20
Total Dissolved Solids (SM 2540C)	1700		20		mg/L			10/24/23 09:58	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Job ID: 240-193887-1

Client Sample ID: MW-3S

Date Collected: 10/17/23 09:45
Date Received: 10/19/23 08:00

Lab Sample ID: 240-193887-3

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	840		100		ug/L		10/21/23 08:00	10/23/23 23:25	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	790		100		ug/L		10/21/23 08:00	10/23/23 23:30	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	310000		1000		ug/L		10/21/23 08:00	10/24/23 19:01	1
Iron	7900		100		ug/L		10/21/23 08:00	10/24/23 19:01	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	210000		1000		ug/L		10/21/23 08:00	10/24/23 19:04	1
Iron	1800		100		ug/L		10/21/23 08:00	10/24/23 19:04	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	12		1.0		mg/L			10/26/23 04:47	1
Fluoride (SW846 9056A)	0.72		0.050		mg/L			10/26/23 04:47	1
Sulfate (SW846 9056A)	1200		10		mg/L			10/26/23 05:09	10
Total Dissolved Solids (SM 2540C)	1800		20		mg/L			10/24/23 09:58	1

Client: TRC Environmental Corporation.
Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Client Sample ID: MW-7S
Lab Sample ID: 240-193887-4
Date Collected: 10/18/23 07:33
Matrix: Water
Date Received: 10/19/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	400		100		ug/L		10/21/23 08:00	10/23/23 23:34	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	220000		1000		ug/L		10/21/23 08:00	10/24/23 19:06	1
Iron	100	U	100		ug/L		10/21/23 08:00	10/24/23 19:06	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	37		1.0		mg/L			10/26/23 01:10	1
Fluoride (SW846 9056A)	0.58		0.050		mg/L			10/26/23 01:10	1
Sulfate (SW846 9056A)	670		5.0		mg/L			10/26/23 01:32	5
Total Dissolved Solids (SM 2540C)	1100		10		mg/L			10/25/23 08:32	1

Client: TRC Environmental Corporation.
Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Client Sample ID: MW-9
Lab Sample ID: 240-193887-5
Date Collected: 10/17/23 12:37
Matrix: Water
Date Received: 10/19/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	520		100		ug/L		10/21/23 08:00	10/23/23 23:47	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	180000		1000		ug/L		10/21/23 08:00	10/24/23 19:09	1
Iron	3100		100		ug/L		10/21/23 08:00	10/24/23 19:09	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	67		1.0		mg/L			10/25/23 23:00	1
Fluoride (SW846 9056A)	0.43		0.050		mg/L			10/25/23 23:00	1
Sulfate (SW846 9056A)	1.0	U	1.0		mg/L			10/25/23 23:00	1
Total Dissolved Solids (SM 2540C)	780		10		mg/L			10/24/23 09:58	1

Client: TRC Environmental Corporation.
Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Client Sample ID: MW-10
Lab Sample ID: 240-193887-6
Date Collected: 10/17/23 11:16
Matrix: Water
Date Received: 10/19/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	510		100		ug/L		10/21/23 08:00	10/23/23 23:51	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	160000		1000		ug/L		10/21/23 08:00	10/24/23 19:11	1
Iron	100	U	100		ug/L		10/21/23 08:00	10/24/23 19:11	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	56		1.0		mg/L			10/25/23 22:17	1
Fluoride (SW846 9056A)	0.41		0.050		mg/L			10/25/23 22:17	1
Sulfate (SW846 9056A)	2.2		1.0		mg/L			10/25/23 22:17	1
Total Dissolved Solids (SM 2540C)	860		10		mg/L			10/24/23 09:58	1

Client: TRC Environmental Corporation.
Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Client Sample ID: MW-11
Lab Sample ID: 240-193887-7
Date Collected: 10/17/23 08:28
Matrix: Water
Date Received: 10/19/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	840		100		ug/L		10/21/23 08:00	10/23/23 23:56	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	250000		1000		ug/L		10/21/23 08:00	10/24/23 19:19	1
Iron	1700		100		ug/L		10/21/23 08:00	10/24/23 19:19	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	16		1.0		mg/L			10/26/23 11:47	1
Fluoride (SW846 9056A)	0.92		0.050		mg/L			10/26/23 11:47	1
Sulfate (SW846 9056A)	1400		10		mg/L			10/26/23 12:07	10
Total Dissolved Solids (SM 2540C)	1900		20		mg/L			10/24/23 09:58	1

Client Sample Results

Client: TRC Environmental Corporation. Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Client Sample ID: MW-12 Lab Sample ID: 240-193887-8

Date Collected: 10/16/23 12:45 **Matrix: Water**
Date Received: 10/19/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	940		100		ug/L		10/21/23 08:00	10/24/23 00:00	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	180000		1000		ug/L		10/21/23 08:00	10/24/23 19:21	1
Iron	2600		100		ug/L		10/21/23 08:00	10/24/23 19:21	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	10		1.0		mg/L			10/25/23 02:44	1
Fluoride (SW846 9056A)	0.86		0.050		mg/L			10/25/23 02:44	1
Sulfate (SW846 9056A)	1200		20		mg/L			10/27/23 17:00	20
Total Dissolved Solids (SM 2540C)	1600		20		mg/L			10/23/23 09:49	1

Client Sample Results

Client: TRC Environmental Corporation. Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Client Sample ID: MW-13 Lab Sample ID: 240-193887-9

Date Collected: 10/16/23 12:11 **Matrix: Water**
Date Received: 10/19/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	100	U	100		ug/L		10/21/23 08:00	10/24/23 00:04	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**130000**		1000		ug/L		10/21/23 08:00	10/24/23 19:24	1
Iron	**9900**		100		ug/L		10/21/23 08:00	10/24/23 19:24	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	**98**		1.0		mg/L			10/25/23 00:43	1
Fluoride (SW846 9056A)	**0.38**		0.050		mg/L			10/25/23 00:43	1
Sulfate (SW846 9056A)	1.0	U	1.0		mg/L			10/25/23 00:43	1
Total Dissolved Solids (SM 2540C)	**530**		10		mg/L			10/23/23 09:49	1

Client: TRC Environmental Corporation.
Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Client Sample ID: MW-14
Lab Sample ID: 240-193887-10
Date Collected: 10/16/23 09:13
Matrix: Water
Date Received: 10/19/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	1400		100		ug/L		10/21/23 08:00	10/24/23 00:09	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	270000		1000		ug/L		10/21/23 08:00	10/24/23 19:26	1
Iron	6400		100		ug/L		10/21/23 08:00	10/24/23 19:26	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	270		10		mg/L			10/25/23 03:44	10
Fluoride (SW846 9056A)	0.44		0.050		mg/L			10/25/23 03:24	1
Sulfate (SW846 9056A)	430		10		mg/L			10/25/23 03:44	10
Total Dissolved Solids (SM 2540C)	1700		20		mg/L			10/23/23 11:13	1

Client Sample Results

Client: TRC Environmental Corporation. Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Client Sample ID: MW-15 Lab Sample ID: 240-193887-11

Date Collected: 10/18/23 08:14 **Matrix: Water**
Date Received: 10/19/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	2500		100		ug/L		10/21/23 08:00	10/24/23 00:13	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	140000		1000		ug/L		10/21/23 08:00	10/24/23 19:29	1
Iron	9100		100		ug/L		10/21/23 08:00	10/24/23 19:29	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	100		1.0		mg/L			10/26/23 03:20	1
Fluoride (SW846 9056A)	0.44		0.050		mg/L			10/26/23 03:20	1
Sulfate (SW846 9056A)	1.0	U	1.0		mg/L			10/26/23 03:20	1
Total Dissolved Solids (SM 2540C)	600		10		mg/L			10/25/23 08:32	1

Client: TRC Environmental Corporation.
Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Client Sample ID: DUP-01
Lab Sample ID: 240-193887-12
Date Collected: 10/16/23 00:00
Matrix: Water
Date Received: 10/19/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	1400		100		ug/L		10/21/23 08:00	10/24/23 00:18	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	270000		1000		ug/L		10/21/23 08:00	10/24/23 19:31	1
Iron	6400		100		ug/L		10/21/23 08:00	10/24/23 19:31	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	280		10		mg/L			10/25/23 04:25	10
Fluoride (SW846 9056A)	0.37		0.050		mg/L			10/25/23 04:05	1
Sulfate (SW846 9056A)	440		10		mg/L			10/25/23 04:25	10
Total Dissolved Solids (SM 2540C)	1600		20		mg/L			10/23/23 11:13	1

Client: TRC Environmental Corporation.
Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Client Sample ID: MW-8S
Lab Sample ID: 240-193887-13
Date Collected: 10/18/23 09:49
Matrix: Water
Date Received: 10/19/23 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	400		100		ug/L		10/21/23 08:00	10/24/23 00:22	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	340000		1000		ug/L		10/21/23 08:00	10/24/23 19:34	1
Iron	4700		100		ug/L		10/21/23 08:00	10/24/23 19:34	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	16		10		mg/L			10/26/23 10:46	10
Fluoride (SW846 9056A)	1.5		0.50		mg/L			10/26/23 10:46	10
Sulfate (SW846 9056A)	1600	F1	10		mg/L			10/26/23 10:46	10
Total Dissolved Solids (SM 2540C)	2000		20		mg/L			10/25/23 11:34	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-591649/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 591955 — **Prep Batch: 591649**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	100	U	100		ug/L		10/21/23 08:00	10/23/23 22:39	1

Lab Sample ID: LCS 240-591649/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 591955 — **Prep Batch: 591649**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1000	971		ug/L		97	80 - 120		

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-591649/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 592080 — **Prep Batch: 591649**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1000	U	1000		ug/L		10/21/23 08:00	10/24/23 18:34	1
Iron	100	U	100		ug/L		10/21/23 08:00	10/24/23 18:34	1

Lab Sample ID: LCS 240-591649/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 592080 — **Prep Batch: 591649**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Calcium			25000	23900		ug/L		96	80 - 120		
Iron			5000	4770		ug/L		95	80 - 120		

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 240-592036/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 592036

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0		mg/L			10/24/23 21:42	1
Fluoride	0.050	U	0.050		mg/L			10/24/23 21:42	1
Sulfate	1.0	U	1.0		mg/L			10/24/23 21:42	1

Lab Sample ID: LCS 240-592036/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 592036

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	51.5		mg/L		103	90 - 110		
Fluoride			2.50	2.70		mg/L		108	90 - 110		
Sulfate			50.0	54.3		mg/L		109	90 - 110		

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 240-592107/3
Matrix: Water
Analysis Batch: 592107

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0		mg/L			10/26/23 09:05	1
Fluoride	0.050	U	0.050		mg/L			10/26/23 09:05	1
Sulfate	1.0	U	1.0		mg/L			10/26/23 09:05	1

Lab Sample ID: LCS 240-592107/4
Matrix: Water
Analysis Batch: 592107

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	51.9		mg/L		104	90 - 110		
Fluoride			2.50	2.75		mg/L		110	90 - 110		
Sulfate			50.0	54.6		mg/L		109	90 - 110		

Lab Sample ID: 240-193887-13 MS
Matrix: Water
Analysis Batch: 592107

Client Sample ID: MW-8S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	16		500	509		mg/L		99	80 - 120		
Fluoride	1.5		25.0	27.1		mg/L		102	80 - 120		
Sulfate	1600	F1	500	1890	F1	mg/L		56	80 - 120		

Lab Sample ID: 240-193887-13 MSD
Matrix: Water
Analysis Batch: 592107

Client Sample ID: MW-8S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	16		500	515		mg/L		100	80 - 120	1	15
Fluoride	1.5		25.0	27.3		mg/L		103	80 - 120	1	15
Sulfate	1600	F1	500	1870	F1	mg/L		53	80 - 120	1	15

Lab Sample ID: MB 240-592110/3
Matrix: Water
Analysis Batch: 592110

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0		mg/L			10/25/23 11:26	1
Fluoride	0.050	U	0.050		mg/L			10/25/23 11:26	1
Sulfate	1.0	U	1.0		mg/L			10/25/23 11:26	1

Lab Sample ID: LCS 240-592110/4
Matrix: Water
Analysis Batch: 592110

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	49.0		mg/L		98	90 - 110		
Fluoride			2.50	2.56		mg/L		102	90 - 110		
Sulfate			50.0	50.2		mg/L		100	90 - 110		

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 240-592383/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 592383

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0		mg/L			10/27/23 04:54	1
Fluoride	0.050	U	0.050		mg/L			10/27/23 04:54	1
Sulfate	1.0	U	1.0		mg/L			10/27/23 04:54	1

Lab Sample ID: LCS 240-592383/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 592383

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	52.0		mg/L		104	90 - 110		
Fluoride			2.50	2.66		mg/L		106	90 - 110		
Sulfate			50.0	54.4		mg/L		109	90 - 110		

Lab Sample ID: MB 240-592554/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 592554

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0		mg/L			10/28/23 21:46	1
Fluoride	0.050	U	0.050		mg/L			10/28/23 21:46	1
Sulfate	1.0	U	1.0		mg/L			10/28/23 21:46	1

Lab Sample ID: LCS 240-592554/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 592554

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	49.0		mg/L		98	90 - 110		
Fluoride			2.50	2.59		mg/L		104	90 - 110		
Sulfate			50.0	50.4		mg/L		101	90 - 110		

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-591830/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 591830

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10		mg/L			10/23/23 09:49	1

Lab Sample ID: LCS 240-591830/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 591830

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			336	307		mg/L		91	80 - 120		

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 240-591849/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 591849

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10		mg/L			10/23/23 11:13	1
Total Dissolved Solids	10	U	10		mg/L			10/23/23 11:13	1

Lab Sample ID: LCS 240-591849/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 591849

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			336	320		mg/L		95	80 - 120		
Total Dissolved Solids			336	320		mg/L		95	80 - 120		

Lab Sample ID: MB 240-592018/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 592018

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10		mg/L			10/24/23 09:58	1
Total Dissolved Solids	10	U	10		mg/L			10/24/23 09:58	1

Lab Sample ID: LCS 240-592018/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 592018

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			336	312		mg/L		93	80 - 120		
Total Dissolved Solids			336	312		mg/L		93	80 - 120		

Lab Sample ID: MB 240-592154/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 592154

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10		mg/L			10/25/23 08:32	1
Total Dissolved Solids	10	U	10		mg/L			10/25/23 08:32	1

Lab Sample ID: LCS 240-592154/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 592154

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			336	323		mg/L		96	80 - 120		
Total Dissolved Solids			336	323		mg/L		96	80 - 120		

Lab Sample ID: MB 240-592221/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 592221

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10		mg/L			10/25/23 11:34	1
Total Dissolved Solids	10	U	10		mg/L			10/25/23 11:34	1

Client: TRC Environmental Corporation.
Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: LCS 240-592221/2
Matrix: Water
Analysis Batch: 592221

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	336	302		mg/L		90	80 - 120
Total Dissolved Solids	336	302		mg/L		90	80 - 120

Metals

Prep Batch: 591649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193887-1	MW-1S	Total Recoverable	Water	3005A	
240-193887-2	MW-2S	Total Recoverable	Water	3005A	
240-193887-3	MW-3S	Dissolved	Water	3005A	
240-193887-3	MW-3S	Total Recoverable	Water	3005A	
240-193887-4	MW-7S	Total Recoverable	Water	3005A	
240-193887-5	MW-9	Total Recoverable	Water	3005A	
240-193887-6	MW-10	Total Recoverable	Water	3005A	
240-193887-7	MW-11	Total Recoverable	Water	3005A	
240-193887-8	MW-12	Total Recoverable	Water	3005A	
240-193887-9	MW-13	Total Recoverable	Water	3005A	
240-193887-10	MW-14	Total Recoverable	Water	3005A	
240-193887-11	MW-15	Total Recoverable	Water	3005A	
240-193887-12	DUP-01	Total Recoverable	Water	3005A	
240-193887-13	MW-8S	Total Recoverable	Water	3005A	
MB 240-591649/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-591649/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-591649/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 591955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193887-1	MW-1S	Total Recoverable	Water	6010D	591649
240-193887-2	MW-2S	Total Recoverable	Water	6010D	591649
240-193887-3	MW-3S	Dissolved	Water	6010D	591649
240-193887-3	MW-3S	Total Recoverable	Water	6010D	591649
240-193887-4	MW-7S	Total Recoverable	Water	6010D	591649
240-193887-5	MW-9	Total Recoverable	Water	6010D	591649
240-193887-6	MW-10	Total Recoverable	Water	6010D	591649
240-193887-7	MW-11	Total Recoverable	Water	6010D	591649
240-193887-8	MW-12	Total Recoverable	Water	6010D	591649
240-193887-9	MW-13	Total Recoverable	Water	6010D	591649
240-193887-10	MW-14	Total Recoverable	Water	6010D	591649
240-193887-11	MW-15	Total Recoverable	Water	6010D	591649
240-193887-12	DUP-01	Total Recoverable	Water	6010D	591649
240-193887-13	MW-8S	Total Recoverable	Water	6010D	591649
MB 240-591649/1-A	Method Blank	Total Recoverable	Water	6010D	591649
LCS 240-591649/2-A	Lab Control Sample	Total Recoverable	Water	6010D	591649

Analysis Batch: 592080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193887-1	MW-1S	Total Recoverable	Water	6020B	591649
240-193887-2	MW-2S	Total Recoverable	Water	6020B	591649
240-193887-3	MW-3S	Dissolved	Water	6020B	591649
240-193887-3	MW-3S	Total Recoverable	Water	6020B	591649
240-193887-4	MW-7S	Total Recoverable	Water	6020B	591649
240-193887-5	MW-9	Total Recoverable	Water	6020B	591649
240-193887-6	MW-10	Total Recoverable	Water	6020B	591649
240-193887-7	MW-11	Total Recoverable	Water	6020B	591649
240-193887-8	MW-12	Total Recoverable	Water	6020B	591649
240-193887-9	MW-13	Total Recoverable	Water	6020B	591649
240-193887-10	MW-14	Total Recoverable	Water	6020B	591649
240-193887-11	MW-15	Total Recoverable	Water	6020B	591649

Metals (Continued)

Analysis Batch: 592080 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193887-12	DUP-01	Total Recoverable	Water	6020B	591649
240-193887-13	MW-8S	Total Recoverable	Water	6020B	591649
MB 240-591649/1-A	Method Blank	Total Recoverable	Water	6020B	591649
LCS 240-591649/3-A	Lab Control Sample	Total Recoverable	Water	6020B	591649

General Chemistry

Analysis Batch: 591830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193887-8	MW-12	Total/NA	Water	SM 2540C	
240-193887-9	MW-13	Total/NA	Water	SM 2540C	
MB 240-591830/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-591830/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 591849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193887-1	MW-1S	Total/NA	Water	SM 2540C	
240-193887-10	MW-14	Total/NA	Water	SM 2540C	
240-193887-12	DUP-01	Total/NA	Water	SM 2540C	
MB 240-591849/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-591849/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 592018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193887-2	MW-2S	Total/NA	Water	SM 2540C	
240-193887-3	MW-3S	Total/NA	Water	SM 2540C	
240-193887-5	MW-9	Total/NA	Water	SM 2540C	
240-193887-6	MW-10	Total/NA	Water	SM 2540C	
240-193887-7	MW-11	Total/NA	Water	SM 2540C	
MB 240-592018/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-592018/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 592036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193887-1	MW-1S	Total/NA	Water	9056A	
240-193887-8	MW-12	Total/NA	Water	9056A	
240-193887-9	MW-13	Total/NA	Water	9056A	
240-193887-10	MW-14	Total/NA	Water	9056A	
240-193887-10	MW-14	Total/NA	Water	9056A	
240-193887-12	DUP-01	Total/NA	Water	9056A	
240-193887-12	DUP-01	Total/NA	Water	9056A	
MB 240-592036/3	Method Blank	Total/NA	Water	9056A	
LCS 240-592036/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 592107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193887-7	MW-11	Total/NA	Water	9056A	
240-193887-7	MW-11	Total/NA	Water	9056A	
240-193887-13	MW-8S	Total/NA	Water	9056A	
MB 240-592107/3	Method Blank	Total/NA	Water	9056A	
LCS 240-592107/4	Lab Control Sample	Total/NA	Water	9056A	

General Chemistry (Continued)

Analysis Batch: 592107 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193887-13 MS	MW-8S	Total/NA	Water	9056A	
240-193887-13 MSD	MW-8S	Total/NA	Water	9056A	

Analysis Batch: 592110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193887-2	MW-2S	Total/NA	Water	9056A	
240-193887-3	MW-3S	Total/NA	Water	9056A	
240-193887-3	MW-3S	Total/NA	Water	9056A	
240-193887-4	MW-7S	Total/NA	Water	9056A	
240-193887-4	MW-7S	Total/NA	Water	9056A	
240-193887-5	MW-9	Total/NA	Water	9056A	
240-193887-6	MW-10	Total/NA	Water	9056A	
240-193887-11	MW-15	Total/NA	Water	9056A	
MB 240-592110/3	Method Blank	Total/NA	Water	9056A	
LCS 240-592110/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 592154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193887-4	MW-7S	Total/NA	Water	SM 2540C	
240-193887-11	MW-15	Total/NA	Water	SM 2540C	
MB 240-592154/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-592154/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 592221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193887-13	MW-8S	Total/NA	Water	SM 2540C	
MB 240-592221/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-592221/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 592383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193887-8	MW-12	Total/NA	Water	9056A	
MB 240-592383/3	Method Blank	Total/NA	Water	9056A	
LCS 240-592383/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 592554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-193887-2	MW-2S	Total/NA	Water	9056A	
MB 240-592554/3	Method Blank	Total/NA	Water	9056A	
LCS 240-592554/4	Lab Control Sample	Total/NA	Water	9056A	

Lab Chronicle

Client: TRC Environmental Corporation. Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Client Sample ID: MW-1S — Lab Sample ID: 240-193887-1

Date Collected: 10/16/23 11:24 **Matrix: Water**
Date Received: 10/19/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6010D		1	591955	KLC	EET CLE	10/23/23 23:16
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6020B		1	592080	RKT	EET CLE	10/24/23 18:56
Total/NA	Analysis	9056A		1	592036	JWW	EET CLE	10/25/23 02:04
Total/NA	Analysis	SM 2540C		1	591849	QUY8	EET CLE	10/23/23 11:13

Client Sample ID: MW-2S — Lab Sample ID: 240-193887-2

Date Collected: 10/17/23 07:22 **Matrix: Water**
Date Received: 10/19/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6010D		1	591955	KLC	EET CLE	10/23/23 23:21
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6020B		1	592080	RKT	EET CLE	10/24/23 18:59
Total/NA	Analysis	9056A		1	592110	JWW	EET CLE	10/25/23 20:28
Total/NA	Analysis	9056A		20	592554	JWW	EET CLE	10/29/23 12:16
Total/NA	Analysis	SM 2540C		1	592018	QUY8	EET CLE	10/24/23 09:58

Client Sample ID: MW-3S — Lab Sample ID: 240-193887-3

Date Collected: 10/17/23 09:45 **Matrix: Water**
Date Received: 10/19/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Dissolved	Analysis	6010D		1	591955	KLC	EET CLE	10/23/23 23:30
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6010D		1	591955	KLC	EET CLE	10/23/23 23:25
Dissolved	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Dissolved	Analysis	6020B		1	592080	RKT	EET CLE	10/24/23 19:04
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6020B		1	592080	RKT	EET CLE	10/24/23 19:01
Total/NA	Analysis	9056A		1	592110	JWW	EET CLE	10/26/23 04:47
Total/NA	Analysis	9056A		10	592110	JWW	EET CLE	10/26/23 05:09
Total/NA	Analysis	SM 2540C		1	592018	QUY8	EET CLE	10/24/23 09:58

Client Sample ID: MW-7S — Lab Sample ID: 240-193887-4

Date Collected: 10/18/23 07:33 **Matrix: Water**
Date Received: 10/19/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6010D		1	591955	KLC	EET CLE	10/23/23 23:34

Lab Chronicle

Client: TRC Environmental Corporation. Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Client Sample ID: MW-7S — Lab Sample ID: 240-193887-4

Date Collected: 10/18/23 07:33 **Matrix: Water**
Date Received: 10/19/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6020B		1	592080	RKT	EET CLE	10/24/23 19:06
Total/NA	Analysis	9056A		1	592110	JWW	EET CLE	10/26/23 01:10
Total/NA	Analysis	9056A		5	592110	JWW	EET CLE	10/26/23 01:32
Total/NA	Analysis	SM 2540C		1	592154	QUY8	EET CLE	10/25/23 08:32

Client Sample ID: MW-9 — Lab Sample ID: 240-193887-5

Date Collected: 10/17/23 12:37 **Matrix: Water**
Date Received: 10/19/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6010D		1	591955	KLC	EET CLE	10/23/23 23:47
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6020B		1	592080	RKT	EET CLE	10/24/23 19:09
Total/NA	Analysis	9056A		1	592110	JWW	EET CLE	10/25/23 23:00
Total/NA	Analysis	SM 2540C		1	592018	QUY8	EET CLE	10/24/23 09:58

Client Sample ID: MW-10 — Lab Sample ID: 240-193887-6

Date Collected: 10/17/23 11:16 **Matrix: Water**
Date Received: 10/19/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6010D		1	591955	KLC	EET CLE	10/23/23 23:51
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6020B		1	592080	RKT	EET CLE	10/24/23 19:11
Total/NA	Analysis	9056A		1	592110	JWW	EET CLE	10/25/23 22:17
Total/NA	Analysis	SM 2540C		1	592018	QUY8	EET CLE	10/24/23 09:58

Client Sample ID: MW-11 — Lab Sample ID: 240-193887-7

Date Collected: 10/17/23 08:28 **Matrix: Water**
Date Received: 10/19/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6010D		1	591955	KLC	EET CLE	10/23/23 23:56
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6020B		1	592080	RKT	EET CLE	10/24/23 19:19
Total/NA	Analysis	9056A		1	592107	JWW	EET CLE	10/26/23 11:47
Total/NA	Analysis	9056A		10	592107	JWW	EET CLE	10/26/23 12:07
Total/NA	Analysis	SM 2540C		1	592018	QUY8	EET CLE	10/24/23 09:58

Lab Chronicle

Client: TRC Environmental Corporation. Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Client Sample ID: MW-12 — Lab Sample ID: 240-193887-8

Date Collected: 10/16/23 12:45 — **Matrix: Water**
Date Received: 10/19/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6010D		1	591955	KLC	EET CLE	10/24/23 00:00
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6020B		1	592080	RKT	EET CLE	10/24/23 19:21
Total/NA	Analysis	9056A		1	592036	JWW	EET CLE	10/25/23 02:44
Total/NA	Analysis	9056A		20	592383	JWW	EET CLE	10/27/23 17:00
Total/NA	Analysis	SM 2540C		1	591830	QUY8	EET CLE	10/23/23 09:49

Client Sample ID: MW-13 — Lab Sample ID: 240-193887-9

Date Collected: 10/16/23 12:11 — **Matrix: Water**
Date Received: 10/19/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6010D		1	591955	KLC	EET CLE	10/24/23 00:04
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6020B		1	592080	RKT	EET CLE	10/24/23 19:24
Total/NA	Analysis	9056A		1	592036	JWW	EET CLE	10/25/23 00:43
Total/NA	Analysis	SM 2540C		1	591830	QUY8	EET CLE	10/23/23 09:49

Client Sample ID: MW-14 — Lab Sample ID: 240-193887-10

Date Collected: 10/16/23 09:13 — **Matrix: Water**
Date Received: 10/19/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6010D		1	591955	KLC	EET CLE	10/24/23 00:09
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6020B		1	592080	RKT	EET CLE	10/24/23 19:26
Total/NA	Analysis	9056A		1	592036	JWW	EET CLE	10/25/23 03:24
Total/NA	Analysis	9056A		10	592036	JWW	EET CLE	10/25/23 03:44
Total/NA	Analysis	SM 2540C		1	591849	QUY8	EET CLE	10/23/23 11:13

Client Sample ID: MW-15 — Lab Sample ID: 240-193887-11

Date Collected: 10/18/23 08:14 — **Matrix: Water**
Date Received: 10/19/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6010D		1	591955	KLC	EET CLE	10/24/23 00:13
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6020B		1	592080	RKT	EET CLE	10/24/23 19:29
Total/NA	Analysis	9056A		1	592110	JWW	EET CLE	10/26/23 03:20
Total/NA	Analysis	SM 2540C		1	592154	QUY8	EET CLE	10/25/23 08:32

Lab Chronicle

Client: TRC Environmental Corporation. Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Client Sample ID: DUP-01 — Lab Sample ID: 240-193887-12

Date Collected: 10/16/23 00:00 — **Matrix: Water**
Date Received: 10/19/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6010D		1	591955	KLC	EET CLE	10/24/23 00:18
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6020B		1	592080	RKT	EET CLE	10/24/23 19:31
Total/NA	Analysis	9056A		1	592036	JWW	EET CLE	10/25/23 04:05
Total/NA	Analysis	9056A		10	592036	JWW	EET CLE	10/25/23 04:25
Total/NA	Analysis	SM 2540C		1	591849	QUY8	EET CLE	10/23/23 11:13

Client Sample ID: MW-8S — Lab Sample ID: 240-193887-13

Date Collected: 10/18/23 09:49 — **Matrix: Water**
Date Received: 10/19/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6010D		1	591955	KLC	EET CLE	10/24/23 00:22
Total Recoverable	Prep	3005A			591649	S4FJ	EET CLE	10/21/23 08:00
Total Recoverable	Analysis	6020B		1	592080	RKT	EET CLE	10/24/23 19:34
Total/NA	Analysis	9056A		10	592107	JWW	EET CLE	10/26/23 10:46
Total/NA	Analysis	SM 2540C		1	592221	QUY8	EET CLE	10/25/23 11:34

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: TRC Environmental Corporation. Job ID: 240-193887-1
Project/Site: CCR DTE MPP Bottom Ash Impoundment

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24
Georgia	State	4062	02-27-24
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-28-24
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-24
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23 *
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-02-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	11-27-23
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

MICHIGAN 190

eurofins Environment Testing

Client Information	Sampler: Javier Jasso	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-112834-33351.1
Client Contact: Mr. Vincent Buening	Phone: 734 904 3316	E-Mail: Kris.Brooks@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: TRC Environmental Corporation	PWSID:			Job #:
Address: 1540 Eisenhower Place	Due Date Requested:			
City: Ann Arbor	TAT Requested (days):			
State, Zip: MI, 48108-7080	Compliance Project: Δ Yes Δ No			
Phone: 313-971-7080(Tel) 313-971-9022(Fax)	PO #: 199492			
Email: vbuening@trccompanies.com	WO #: 518728 - See pop up note			
Project Name: CCR DTE Monroe Power Plant Bottom Ash Impoundment	Project #: 24016830			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd - TDS	6010B Bo, 6020 Ca, Fe	9056A_28D - Chloride, Fluoride and Sulfate	6010B Bo, 6020 Ca, Fe Field Filter	Total Number of containers	Special Instructions/Note:
				Preservation Code:			N	D	N	D		
MW-1S	10/18/23	1124	G	Water	N	N	✓	✓	✓	✓	3	
MW-2S	10/17/23	0735	G	Water	N	N	✓	✓	✓		3	
MW-3S	10/17/23	0945	G	Water	N	N	✓	✓	✓	✓	4	
MW-7S	10/18/23	0733		Water	N	N	✓	✓	✓		3	
MW-9	10/17/23	1237	G	Water	N	N	✓	✓	✓		3	
MW-10	10/17/23	1110	G	Water	N	N	✓	✓	✓		3	
MW-11	10/17/23	0838	G	Water	N	N	✓	✓	✓		3	
MW-12	10/16/23	1345	G	Water	N	N	✓	✓	✓		3	
MW-13	10/16/23	1211	G	Water	N	N	✓	✓	✓		3	
MW-14	10/16/23	0913	G	Water	N	N	✓	✓	✓		3	
MW-15	10/18/23	0814	G	Water	N	N	✓	✓	✓		3	

240-193887 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 10/18/23 1200	Company: TRC	Received by: [signature]	Date/Time: 10/18/23 1200	Company: EENC
Relinquished by: [signature]	Date/Time: 10/18/23	Company: EETA	Received by: [signature]	Date/Time: 10-19-23 800	Company: EC
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

MICHIGAN 190

eurofins Environment Testing

Client Information	Sampler: JAVIER TASSO	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-112834-33351.2
Client Contact: Mr. Vincent Buening	Phone: 7349043310	E-Mail: Kris.Brooks@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: TRC Environmental Corporation.	PWSID:			Job #:
Address: 1540 Eisenhower Place	Due Date Requested:			
City: Ann Arbor	TAT Requested (days):			
State, Zip: MI, 48108-7080	Compliance Project: Δ Yes Δ No			
Phone: 313-971-7080(Tel) 313-971-9022(Fax)	PO #: 199492			
Email: vbuening@trccompanies.com	WO #: 518728 - See pop up note			
Project Name: CCR DTE Monroe Power Plant Bottom Ash Impoundment	Project #: 24016830			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd - TDS	6010B Bo, 6020 Ca, Fe	9056A_28D - Chloride, Fluoride and Sulfate	6010B Bo, 6020 Ca, Fe Field Filter	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	N	D		
DUP-01	10/18/23	[illegible]	G	Water	N	Y	X	X	X	X	3	
MW-8S	10/18/23	0949	G	Water	N	Y	X	X	X		3	
				Water								
				Water								
				Water								
				Water								
				Water								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☑ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/18/23 1500	TRC			
2		10/18/23	EFDTA		10-19-23 800	EC
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins – Cleveland Sample Receipt Form/Narrative Login # :_____
Barberton Facility

Client IRC ENV. Corp Site Name_____ Cooler unpacked by:

Cooler Received on 10-19-23 Opened on 10-19-23

FedEx: 1st Grd Exp UPS FAS ~~Waypoint~~ Client Drop Off Eurofins Courier Other_____

Receipt After-hours: Drop-off Date/Time_____ Storage Location_____

Eurofins Cooler # EC Foam Box Client Cooler Box Other_____

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other_____

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☑ See Multiple Cooler Form

IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 2	~~Yes~~ No	**Tests that are not checked for pH by Receiving:** VOAs, Oil and Grease, TOC
-Were the seals on the outside of the cooler(s) signed & dated?	~~Yes~~ No NA	
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes ~~No~~	
-Were tamper/custody seals intact and uncompromised?	Yes No (NA)	
3. Shippers' packing slip attached to the cooler(s)?	Yes (No)	
4. Did custody papers accompany the sample(s)?	~~Yes~~ No	
5. Were the custody papers relinquished & signed in the appropriate place?	~~Yes~~ No	
6. Was/were the person(s) who collected the samples clearly identified on the COC?	~~Yes~~ No	
7. Did all bottles arrive in good condition (Unbroken)?	~~Yes~~ No	
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	~~Yes~~ No	
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp(Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	~~Yes~~ No	
11. Sufficient quantity received to perform indicated analyses?	~~Yes~~ No	
12. Are these work share samples and all listed on the COC?	Yes ~~No~~	
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	~~Yes~~ No NA	pH Strip Lot# HC316719
14. Were VOAs on the COC?	Yes ~~No~~	
15. Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes ~~No~~ NA	
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes ~~No~~	
17. Was a LL Hg or Me Hg trip blank present? _____	Yes ~~No~~	

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s):_____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login # : ______________

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC (circled) Client Box Other	IR GUN #: 22	0.9	0.8	Wet Ice (circled) Blue Ice Dry Ice Water None
EC (circled) Client Box Other	IR GUN #: 22	0.4	0.3	Wet Ice (circled) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

WI-NC-099 Cooler Receipt Form Page 2 – Multiple Coolers

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservative Added (mls)	Lot #
MW-1S	240-193887-C-1	Plastic 500ml - with Nitric Acid	<2			
MW-2S	240-193887-C-2	Plastic 500ml - with Nitric Acid	<2			
MW-3S	240-193887-C-3	Plastic 500ml - with Nitric Acid	<2			
MW-3S	240-193887-D-3	Plastic 500ml - w/ Nitric - Dis.	<2			
MW-7S	240-193887-C-4	Plastic 500ml - with Nitric Acid	<2			
MW-9	240-193887-C-5	Plastic 500ml - with Nitric Acid	<2			
MW-10	240-193887-C-6	Plastic 500ml - with Nitric Acid	<2			
MW-11	240-193887-C-7	Plastic 500ml - with Nitric Acid	<2			
MW-12	240-193887-C-8	Plastic 500ml - with Nitric Acid	<2			
MW-13	240-193887-C-9	Plastic 500ml - with Nitric Acid	<2			
MW-14	240-193887-C-10	Plastic 500ml - with Nitric Acid	<2			
MW-15	240-193887-C-11	Plastic 500ml - with Nitric Acid	<2			
DUP-01	240-193887-C-12	Plastic 500ml - with Nitric Acid	<2			
MW-8S	240-193887-C-13	Plastic 500ml - with Nitric Acid	<2			

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Vincent Buening
TRC Environmental Corporation.
1540 Eisenhower Place
Ann Arbor, Michigan 48108-7080

Generated 4/13/2024 4:18:26 PM

JOB DESCRIPTION

CCR DTE Monroe Power Plant

JOB NUMBER

240-202179-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Generated
4/13/2024 4:18:26 PM

Authorized for release by
Kris Brooks, Project Manager II
Kris.Brooks@et.eurofinsus.com
(330)966-9790

Table of Contents

Qualifiers

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-202179-1 Eurofins Cleveland

Job Narrative
240-202179-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/4/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.3°C and 4.2°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Monroe Power Plant

Job ID: 240-202179-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
9056A	Anions, Ion Chromatography	SW846	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: TRC Environmental Corporation.
Job ID: 240-202179-1
Project/Site: CCR DTE Monroe Power Plant

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-202179-1	MW-1S	Water	04/01/24 14:29	04/04/24 08:00
240-202179-2	MW-2S	Water	04/01/24 13:15	04/04/24 08:00
240-202179-3	MW-3S	Water	04/01/24 10:27	04/04/24 08:00
240-202179-4	MW-7S	Water	04/01/24 11:37	04/04/24 08:00
240-202179-5	MW-9	Water	04/01/24 12:55	04/04/24 08:00
240-202179-6	MW-10	Water	04/01/24 13:30	04/04/24 08:00
240-202179-7	MW-11	Water	04/01/24 11:25	04/04/24 08:00
240-202179-8	MW-12	Water	04/01/24 12:35	04/04/24 08:00
240-202179-9	MW-13	Water	04/01/24 14:18	04/04/24 08:00
240-202179-10	MW-14	Water	04/01/24 09:05	04/04/24 08:00
240-202179-11	MW-15	Water	04/01/24 10:51	04/04/24 08:00
240-202179-12	DUP-01	Water	04/01/24 00:00	04/04/24 08:00

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Monroe Power Plant

Job ID: 240-202179-1

Client Sample ID: MW-1S — Lab Sample ID: 240-202179-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	510		100		ug/L	1		6010D	Total Recoverable
Boron	540		100		ug/L	1		6010D	Dissolved
Calcium	230000		1000		ug/L	1		6020B	Total Recoverable
Iron	460		100		ug/L	1		6020B	Total Recoverable
Calcium	230000		1000		ug/L	1		6020B	Dissolved
Chloride	91		1.0		mg/L	1		9056A	Total/NA
Fluoride	0.21		0.050		mg/L	1		9056A	Total/NA
Sulfate	100		1.0		mg/L	1		9056A	Total/NA
Total Dissolved Solids	910		20		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-2S — Lab Sample ID: 240-202179-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	1000		100		ug/L	1		6010D	Total Recoverable
Calcium	250000		1000		ug/L	1		6020B	Total Recoverable
Iron	2400		100		ug/L	1		6020B	Total Recoverable
Chloride	11		1.0		mg/L	1		9056A	Total/NA
Fluoride	0.64		0.050		mg/L	1		9056A	Total/NA
Sulfate	1300		10		mg/L	10		9056A	Total/NA
Total Dissolved Solids	1800		20		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-3S — Lab Sample ID: 240-202179-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	840		100		ug/L	1		6010D	Total Recoverable
Boron	930		100		ug/L	1		6010D	Dissolved
Calcium	330000		1000		ug/L	1		6020B	Total Recoverable
Iron	9900		100		ug/L	1		6020B	Total Recoverable
Calcium	230000		1000		ug/L	1		6020B	Dissolved
Iron	1500		100		ug/L	1		6020B	Dissolved
Chloride	12		1.0		mg/L	1		9056A	Total/NA
Fluoride	0.73		0.050		mg/L	1		9056A	Total/NA
Sulfate	1200		10		mg/L	10		9056A	Total/NA
Total Dissolved Solids	1800		20		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-7S — Lab Sample ID: 240-202179-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	530		100		ug/L	1		6010D	Total Recoverable
Calcium	150000		1000		ug/L	1		6020B	Total Recoverable
Iron	310		100		ug/L	1		6020B	Total Recoverable
Chloride	63		1.0		mg/L	1		9056A	Total/NA
Fluoride	0.49		0.050		mg/L	1		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Monroe Power Plant

Job ID: 240-202179-1

Client Sample ID: MW-7S (Continued) — Lab Sample ID: 240-202179-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Sulfate	250		10		mg/L	10		9056A	Total/NA
Total Dissolved Solids	680		10		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-9 — Lab Sample ID: 240-202179-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	560		100		ug/L	1		6010D	Total Recoverable
Calcium	190000		1000		ug/L	1		6020B	Total Recoverable
Iron	3400		100		ug/L	1		6020B	Total Recoverable
Chloride	73		1.0		mg/L	1		9056A	Total/NA
Fluoride	0.47		0.050		mg/L	1		9056A	Total/NA
Sulfate	1.9		1.0		mg/L	1		9056A	Total/NA
Total Dissolved Solids	780		10		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-10 — Lab Sample ID: 240-202179-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	480		100		ug/L	1		6010D	Total Recoverable
Calcium	160000		1000		ug/L	1		6020B	Total Recoverable
Iron	360		100		ug/L	1		6020B	Total Recoverable
Chloride	63		1.0		mg/L	1		9056A	Total/NA
Fluoride	0.43		0.050		mg/L	1		9056A	Total/NA
Sulfate	3.3		1.0		mg/L	1		9056A	Total/NA
Total Dissolved Solids	810		10		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-11 — Lab Sample ID: 240-202179-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	850		100		ug/L	1		6010D	Total Recoverable
Calcium	240000		1000		ug/L	1		6020B	Total Recoverable
Iron	1900		100		ug/L	1		6020B	Total Recoverable
Chloride	16		1.0		mg/L	1		9056A	Total/NA
Fluoride	0.87		0.050		mg/L	1		9056A	Total/NA
Sulfate	1400		10		mg/L	10		9056A	Total/NA
Total Dissolved Solids	2000		20		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-12 — Lab Sample ID: 240-202179-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	1000		100		ug/L	1		6010D	Total Recoverable
Calcium	190000		1000		ug/L	1		6020B	Total Recoverable
Iron	1700		100		ug/L	1		6020B	Total Recoverable
Chloride	10		1.0		mg/L	1		9056A	Total/NA
Fluoride	0.79		0.050		mg/L	1		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-12 (Continued) — Lab Sample ID: 240-202179-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Sulfate	1100		10		mg/L	10		9056A	Total/NA
Total Dissolved Solids	1700		20		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-13 — Lab Sample ID: 240-202179-9

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Calcium	130000		1000		ug/L	1		6020B	Total Recoverable
Iron	9500		100		ug/L	1		6020B	Total Recoverable
Chloride	99		1.0		mg/L	1		9056A	Total/NA
Fluoride	0.32		0.050		mg/L	1		9056A	Total/NA
Total Dissolved Solids	540		10		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-14 — Lab Sample ID: 240-202179-10

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	1500		100		ug/L	1		6010D	Total Recoverable
Calcium	270000		1000		ug/L	1		6020B	Total Recoverable
Iron	6600		100		ug/L	1		6020B	Total Recoverable
Chloride	250		10		mg/L	10		9056A	Total/NA
Fluoride	0.33		0.050		mg/L	1		9056A	Total/NA
Sulfate	400		10		mg/L	10		9056A	Total/NA
Total Dissolved Solids	1600		20		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-15 — Lab Sample ID: 240-202179-11

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	2600		100		ug/L	1		6010D	Total Recoverable
Calcium	140000		1000		ug/L	1		6020B	Total Recoverable
Iron	8800		100		ug/L	1		6020B	Total Recoverable
Chloride	110		1.0		mg/L	1		9056A	Total/NA
Fluoride	0.44		0.050		mg/L	1		9056A	Total/NA
Total Dissolved Solids	640		10		mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 240-202179-12

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Boron	1500		100		ug/L	1		6010D	Total Recoverable
Calcium	270000		1000		ug/L	1		6020B	Total Recoverable
Iron	6500		100		ug/L	1		6020B	Total Recoverable
Chloride	250		10		mg/L	10		9056A	Total/NA
Fluoride	0.33		0.050		mg/L	1		9056A	Total/NA
Sulfate	400		10		mg/L	10		9056A	Total/NA
Total Dissolved Solids	1500		20		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-1S
Date Collected: 04/01/24 14:29
Date Received: 04/04/24 08:00

Lab Sample ID: 240-202179-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	510		100		ug/L		04/05/24 14:00	04/09/24 13:19	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	540		100		ug/L		04/05/24 14:00	04/09/24 13:23	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	230000		1000		ug/L		04/05/24 14:00	04/08/24 15:51	1
Iron	460		100		ug/L		04/05/24 14:00	04/08/24 15:51	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	230000		1000		ug/L		04/05/24 14:00	04/08/24 15:54	1
Iron	100	U	100		ug/L		04/05/24 14:00	04/08/24 15:54	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	91		1.0		mg/L			04/11/24 04:06	1
Fluoride (SW846 9056A)	0.21		0.050		mg/L			04/11/24 04:06	1
Sulfate (SW846 9056A)	100		1.0		mg/L			04/11/24 04:06	1
Total Dissolved Solids (SM 2540C)	910		20		mg/L			04/05/24 10:00	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Monroe Power Plant

Job ID: 240-202179-1

Client Sample ID: MW-2S
Date Collected: 04/01/24 13:15
Date Received: 04/04/24 08:00

Lab Sample ID: 240-202179-2
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	1000		100		ug/L		04/05/24 14:00	04/09/24 13:28	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	250000		1000		ug/L		04/05/24 14:00	04/08/24 15:56	1
Iron	2400		100		ug/L		04/05/24 14:00	04/08/24 15:56	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	11		1.0		mg/L			04/11/24 04:49	1
Fluoride (SW846 9056A)	0.64		0.050		mg/L			04/11/24 04:49	1
Sulfate (SW846 9056A)	1300		10		mg/L			04/11/24 05:11	10
Total Dissolved Solids (SM 2540C)	1800		20		mg/L			04/05/24 10:00	1

Client Sample ID: MW-3S
Date Collected: 04/01/24 10:27
Date Received: 04/04/24 08:00

Lab Sample ID: 240-202179-3
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	840		100		ug/L		04/05/24 14:00	04/09/24 13:32	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	930		100		ug/L		04/05/24 14:00	04/09/24 13:36	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	330000		1000		ug/L		04/05/24 14:00	04/08/24 15:59	1
Iron	9900		100		ug/L		04/05/24 14:00	04/08/24 15:59	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	230000		1000		ug/L		04/05/24 14:00	04/08/24 16:01	1
Iron	1500		100		ug/L		04/05/24 14:00	04/08/24 16:01	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	12		1.0		mg/L			04/11/24 05:32	1
Fluoride (SW846 9056A)	0.73		0.050		mg/L			04/11/24 05:32	1
Sulfate (SW846 9056A)	1200		10		mg/L			04/11/24 06:38	10
Total Dissolved Solids (SM 2540C)	1800		20		mg/L			04/05/24 10:00	1

Client: TRC Environmental Corporation.
Job ID: 240-202179-1
Project/Site: CCR DTE Monroe Power Plant

Client Sample ID: MW-7S
Lab Sample ID: 240-202179-4
Date Collected: 04/01/24 11:37
Matrix: Water
Date Received: 04/04/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	530		100		ug/L		04/05/24 14:00	04/09/24 13:41	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	150000		1000		ug/L		04/05/24 14:00	04/08/24 16:09	1
Iron	310		100		ug/L		04/05/24 14:00	04/08/24 16:09	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	63		1.0		mg/L			04/11/24 06:59	1
Fluoride (SW846 9056A)	0.49		0.050		mg/L			04/11/24 06:59	1
Sulfate (SW846 9056A)	250		10		mg/L			04/11/24 07:21	10
Total Dissolved Solids (SM 2540C)	680		10		mg/L			04/05/24 10:00	1

Client: TRC Environmental Corporation.
Job ID: 240-202179-1
Project/Site: CCR DTE Monroe Power Plant

Client Sample ID: MW-9
Lab Sample ID: 240-202179-5
Date Collected: 04/01/24 12:55
Matrix: Water
Date Received: 04/04/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	560		100		ug/L		04/05/24 14:00	04/09/24 13:45	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	190000		1000		ug/L		04/05/24 14:00	04/08/24 16:12	1
Iron	3400		100		ug/L		04/05/24 14:00	04/08/24 16:12	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	73		1.0		mg/L			04/11/24 07:43	1
Fluoride (SW846 9056A)	0.47		0.050		mg/L			04/11/24 07:43	1
Sulfate (SW846 9056A)	1.9		1.0		mg/L			04/11/24 07:43	1
Total Dissolved Solids (SM 2540C)	780		10		mg/L			04/05/24 10:00	1

Client: TRC Environmental Corporation.
Job ID: 240-202179-1
Project/Site: CCR DTE Monroe Power Plant

Client Sample ID: MW-10
Lab Sample ID: 240-202179-6
Date Collected: 04/01/24 13:30
Matrix: Water
Date Received: 04/04/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	480		100		ug/L		04/05/24 14:00	04/09/24 13:49	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	160000		1000		ug/L		04/05/24 14:00	04/08/24 16:14	1
Iron	360		100		ug/L		04/05/24 14:00	04/08/24 16:14	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	63		1.0		mg/L			04/11/24 08:26	1
Fluoride (SW846 9056A)	0.43		0.050		mg/L			04/11/24 08:26	1
Sulfate (SW846 9056A)	3.3		1.0		mg/L			04/11/24 08:26	1
Total Dissolved Solids (SM 2540C)	810		10		mg/L			04/05/24 10:00	1

Client: TRC Environmental Corporation.
Job ID: 240-202179-1
Project/Site: CCR DTE Monroe Power Plant

Client Sample ID: MW-11
Lab Sample ID: 240-202179-7
Date Collected: 04/01/24 11:25
Matrix: Water
Date Received: 04/04/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	850		100		ug/L		04/05/24 14:00	04/09/24 14:02	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	240000		1000		ug/L		04/05/24 14:00	04/08/24 16:17	1
Iron	1900		100		ug/L		04/05/24 14:00	04/08/24 16:17	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	16		1.0		mg/L			04/11/24 09:10	1
Fluoride (SW846 9056A)	0.87		0.050		mg/L			04/11/24 09:10	1
Sulfate (SW846 9056A)	1400		10		mg/L			04/11/24 09:31	10
Total Dissolved Solids (SM 2540C)	2000		20		mg/L			04/05/24 10:00	1

Client: TRC Environmental Corporation.
Job ID: 240-202179-1
Project/Site: CCR DTE Monroe Power Plant

Client Sample ID: MW-12
Lab Sample ID: 240-202179-8
Date Collected: 04/01/24 12:35
Matrix: Water
Date Received: 04/04/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	1000		100		ug/L		04/05/24 14:00	04/09/24 14:06	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	190000		1000		ug/L		04/05/24 14:00	04/08/24 16:19	1
Iron	1700		100		ug/L		04/05/24 14:00	04/08/24 16:19	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	10		1.0		mg/L			04/11/24 09:53	1
Fluoride (SW846 9056A)	0.79		0.050		mg/L			04/11/24 09:53	1
Sulfate (SW846 9056A)	1100		10		mg/L			04/11/24 10:58	10
Total Dissolved Solids (SM 2540C)	1700		20		mg/L			04/05/24 10:00	1

Client: TRC Environmental Corporation.
Job ID: 240-202179-1
Project/Site: CCR DTE Monroe Power Plant

Client Sample ID: MW-13
Lab Sample ID: 240-202179-9
Date Collected: 04/01/24 14:18
Matrix: Water
Date Received: 04/04/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	100	U	100		ug/L		04/05/24 14:00	04/09/24 14:11	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**130000**		1000		ug/L		04/05/24 14:00	04/08/24 16:22	1
Iron	**9500**		100		ug/L		04/05/24 14:00	04/08/24 16:22	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	**99**		1.0		mg/L			04/11/24 11:20	1
Fluoride (SW846 9056A)	**0.32**		0.050		mg/L			04/11/24 11:20	1
Sulfate (SW846 9056A)	1.0	U	1.0		mg/L			04/11/24 11:20	1
Total Dissolved Solids (SM 2540C)	**540**		10		mg/L			04/05/24 10:00	1

Client: TRC Environmental Corporation.
Job ID: 240-202179-1
Project/Site: CCR DTE Monroe Power Plant

Client Sample ID: MW-14
Lab Sample ID: 240-202179-10
Date Collected: 04/01/24 09:05
Matrix: Water
Date Received: 04/04/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	1500		100		ug/L		04/05/24 14:00	04/09/24 14:15	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	270000		1000		ug/L		04/05/24 14:00	04/08/24 16:24	1
Iron	6600		100		ug/L		04/05/24 14:00	04/08/24 16:24	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	250		10		mg/L			04/11/24 16:24	10
Fluoride (SW846 9056A)	0.33		0.050		mg/L			04/11/24 16:02	1
Sulfate (SW846 9056A)	400		10		mg/L			04/11/24 16:24	10
Total Dissolved Solids (SM 2540C)	1600		20		mg/L			04/08/24 11:54	1

Client Sample ID: MW-15
Date Collected: 04/01/24 10:51
Date Received: 04/04/24 08:00

Lab Sample ID: 240-202179-11
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	2600		100		ug/L		04/05/24 14:00	04/09/24 14:19	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	140000		1000		ug/L		04/05/24 14:00	04/08/24 16:27	1
Iron	8800		100		ug/L		04/05/24 14:00	04/08/24 16:27	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	110		1.0		mg/L			04/11/24 16:46	1
Fluoride (SW846 9056A)	0.44		0.050		mg/L			04/11/24 16:46	1
Sulfate (SW846 9056A)	1.0	U	1.0		mg/L			04/11/24 16:46	1
Total Dissolved Solids (SM 2540C)	640		10		mg/L			04/05/24 10:00	1

Client Sample ID: DUP-01
Date Collected: 04/01/24 00:00
Date Received: 04/04/24 08:00

Lab Sample ID: 240-202179-12
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	1500		100		ug/L		04/05/24 14:00	04/09/24 14:24	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	270000		1000		ug/L		04/05/24 14:00	04/08/24 16:29	1
Iron	6500		100		ug/L		04/05/24 14:00	04/08/24 16:29	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	250		10		mg/L			04/11/24 17:51	10
Fluoride (SW846 9056A)	0.33		0.050		mg/L			04/11/24 17:29	1
Sulfate (SW846 9056A)	400		10		mg/L			04/11/24 17:51	10
Total Dissolved Solids (SM 2540C)	1500		20		mg/L			04/05/24 10:00	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-608597/1-A
Matrix: Water
Analysis Batch: 608907

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 608597

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	100	U	100		ug/L		04/05/24 14:00	04/09/24 12:45	1

Lab Sample ID: LCS 240-608597/2-A
Matrix: Water
Analysis Batch: 608907

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 608597

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1000	971		ug/L		97	80 - 120		

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-608597/1-A
Matrix: Water
Analysis Batch: 608867

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 608597

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1000	U	1000		ug/L		04/05/24 14:00	04/08/24 15:29	1
Iron	100	U	100		ug/L		04/05/24 14:00	04/08/24 15:29	1

Lab Sample ID: LCS 240-608597/3-A
Matrix: Water
Analysis Batch: 608867

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 608597

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Calcium			25000	23400		ug/L		94	80 - 120		
Iron			5000	4510		ug/L		90	80 - 120		

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 240-609191/3
Matrix: Water
Analysis Batch: 609191

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0		mg/L			04/11/24 02:17	1
Fluoride	0.050	U	0.050		mg/L			04/11/24 02:17	1
Sulfate	1.0	U	1.0		mg/L			04/11/24 02:17	1

Lab Sample ID: LCS 240-609191/4
Matrix: Water
Analysis Batch: 609191

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	48.8		mg/L		98	90 - 110		
Fluoride			2.50	2.53		mg/L		101	90 - 110		
Sulfate			50.0	50.0		mg/L		100	90 - 110		

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-608585/1
Matrix: Water
Analysis Batch: 608585

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10		mg/L			04/05/24 10:00	1

Lab Sample ID: LCS 240-608585/2
Matrix: Water
Analysis Batch: 608585

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			495	491		mg/L		99	80 - 120		

Lab Sample ID: 240-202179-5 DU
Matrix: Water
Analysis Batch: 608585

Client Sample ID: MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	780			759		mg/L				2	20

Lab Sample ID: MB 240-608813/1
Matrix: Water
Analysis Batch: 608813

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10		mg/L			04/08/24 11:54	1

Lab Sample ID: LCS 240-608813/2
Matrix: Water
Analysis Batch: 608813

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			495	480		mg/L		97	80 - 120		

Metals

Prep Batch: 608597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202179-1	MW-1S	Dissolved	Water	3005A	
240-202179-1	MW-1S	Total Recoverable	Water	3005A	
240-202179-2	MW-2S	Total Recoverable	Water	3005A	
240-202179-3	MW-3S	Dissolved	Water	3005A	
240-202179-3	MW-3S	Total Recoverable	Water	3005A	
240-202179-4	MW-7S	Total Recoverable	Water	3005A	
240-202179-5	MW-9	Total Recoverable	Water	3005A	
240-202179-6	MW-10	Total Recoverable	Water	3005A	
240-202179-7	MW-11	Total Recoverable	Water	3005A	
240-202179-8	MW-12	Total Recoverable	Water	3005A	
240-202179-9	MW-13	Total Recoverable	Water	3005A	
240-202179-10	MW-14	Total Recoverable	Water	3005A	
240-202179-11	MW-15	Total Recoverable	Water	3005A	
240-202179-12	DUP-01	Total Recoverable	Water	3005A	
MB 240-608597/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-608597/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-608597/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 608867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202179-1	MW-1S	Dissolved	Water	6020B	608597
240-202179-1	MW-1S	Total Recoverable	Water	6020B	608597
240-202179-2	MW-2S	Total Recoverable	Water	6020B	608597
240-202179-3	MW-3S	Dissolved	Water	6020B	608597
240-202179-3	MW-3S	Total Recoverable	Water	6020B	608597
240-202179-4	MW-7S	Total Recoverable	Water	6020B	608597
240-202179-5	MW-9	Total Recoverable	Water	6020B	608597
240-202179-6	MW-10	Total Recoverable	Water	6020B	608597
240-202179-7	MW-11	Total Recoverable	Water	6020B	608597
240-202179-8	MW-12	Total Recoverable	Water	6020B	608597
240-202179-9	MW-13	Total Recoverable	Water	6020B	608597
240-202179-10	MW-14	Total Recoverable	Water	6020B	608597
240-202179-11	MW-15	Total Recoverable	Water	6020B	608597
240-202179-12	DUP-01	Total Recoverable	Water	6020B	608597
MB 240-608597/1-A	Method Blank	Total Recoverable	Water	6020B	608597
LCS 240-608597/3-A	Lab Control Sample	Total Recoverable	Water	6020B	608597

Analysis Batch: 608907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202179-1	MW-1S	Dissolved	Water	6010D	608597
240-202179-1	MW-1S	Total Recoverable	Water	6010D	608597
240-202179-2	MW-2S	Total Recoverable	Water	6010D	608597
240-202179-3	MW-3S	Dissolved	Water	6010D	608597
240-202179-3	MW-3S	Total Recoverable	Water	6010D	608597
240-202179-4	MW-7S	Total Recoverable	Water	6010D	608597
240-202179-5	MW-9	Total Recoverable	Water	6010D	608597
240-202179-6	MW-10	Total Recoverable	Water	6010D	608597
240-202179-7	MW-11	Total Recoverable	Water	6010D	608597
240-202179-8	MW-12	Total Recoverable	Water	6010D	608597
240-202179-9	MW-13	Total Recoverable	Water	6010D	608597
240-202179-10	MW-14	Total Recoverable	Water	6010D	608597

Metals (Continued)

Analysis Batch: 608907 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202179-11	MW-15	Total Recoverable	Water	6010D	608597
240-202179-12	DUP-01	Total Recoverable	Water	6010D	608597
MB 240-608597/1-A	Method Blank	Total Recoverable	Water	6010D	608597
LCS 240-608597/2-A	Lab Control Sample	Total Recoverable	Water	6010D	608597

General Chemistry

Analysis Batch: 608585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202179-1	MW-1S	Total/NA	Water	SM 2540C	
240-202179-2	MW-2S	Total/NA	Water	SM 2540C	
240-202179-3	MW-3S	Total/NA	Water	SM 2540C	
240-202179-4	MW-7S	Total/NA	Water	SM 2540C	
240-202179-5	MW-9	Total/NA	Water	SM 2540C	
240-202179-6	MW-10	Total/NA	Water	SM 2540C	
240-202179-7	MW-11	Total/NA	Water	SM 2540C	
240-202179-8	MW-12	Total/NA	Water	SM 2540C	
240-202179-9	MW-13	Total/NA	Water	SM 2540C	
240-202179-11	MW-15	Total/NA	Water	SM 2540C	
240-202179-12	DUP-01	Total/NA	Water	SM 2540C	
MB 240-608585/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-608585/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-202179-5 DU	MW-9	Total/NA	Water	SM 2540C	

Analysis Batch: 608813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202179-10	MW-14	Total/NA	Water	SM 2540C	
MB 240-608813/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-608813/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 609191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202179-1	MW-1S	Total/NA	Water	9056A	
240-202179-2	MW-2S	Total/NA	Water	9056A	
240-202179-2	MW-2S	Total/NA	Water	9056A	
240-202179-3	MW-3S	Total/NA	Water	9056A	
240-202179-3	MW-3S	Total/NA	Water	9056A	
240-202179-4	MW-7S	Total/NA	Water	9056A	
240-202179-4	MW-7S	Total/NA	Water	9056A	
240-202179-5	MW-9	Total/NA	Water	9056A	
240-202179-6	MW-10	Total/NA	Water	9056A	
240-202179-7	MW-11	Total/NA	Water	9056A	
240-202179-7	MW-11	Total/NA	Water	9056A	
240-202179-8	MW-12	Total/NA	Water	9056A	
240-202179-8	MW-12	Total/NA	Water	9056A	
240-202179-9	MW-13	Total/NA	Water	9056A	
240-202179-10	MW-14	Total/NA	Water	9056A	
240-202179-10	MW-14	Total/NA	Water	9056A	
240-202179-11	MW-15	Total/NA	Water	9056A	
240-202179-12	DUP-01	Total/NA	Water	9056A	
240-202179-12	DUP-01	Total/NA	Water	9056A	

General Chemistry (Continued)

Analysis Batch: 609191 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-609191/3	Method Blank	Total/NA	Water	9056A	
LCS 240-609191/4	Lab Control Sample	Total/NA	Water	9056A	

Lab Chronicle

Client: TRC Environmental Corporation.
Job ID: 240-202179-1
Project/Site: CCR DTE Monroe Power Plant

Client Sample ID: MW-1S
Lab Sample ID: 240-202179-1
Date Collected: 04/01/24 14:29
Matrix: Water
Date Received: 04/04/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Dissolved	Analysis	6010D		1	608907	KLC	EET CLE	04/09/24 13:23
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6010D		1	608907	KLC	EET CLE	04/09/24 13:19
Dissolved	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Dissolved	Analysis	6020B		1	608867	RKT	EET CLE	04/08/24 15:54
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6020B		1	608867	RKT	EET CLE	04/08/24 15:51
Total/NA	Analysis	9056A		1	609191	JWW	EET CLE	04/11/24 04:06
Total/NA	Analysis	SM 2540C		1	608585	C5SV	EET CLE	04/05/24 10:00

Client Sample ID: MW-2S
Lab Sample ID: 240-202179-2
Date Collected: 04/01/24 13:15
Matrix: Water
Date Received: 04/04/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6010D		1	608907	KLC	EET CLE	04/09/24 13:28
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6020B		1	608867	RKT	EET CLE	04/08/24 15:56
Total/NA	Analysis	9056A		1	609191	JWW	EET CLE	04/11/24 04:49
Total/NA	Analysis	9056A		10	609191	JWW	EET CLE	04/11/24 05:11
Total/NA	Analysis	SM 2540C		1	608585	C5SV	EET CLE	04/05/24 10:00

Client Sample ID: MW-3S
Lab Sample ID: 240-202179-3
Date Collected: 04/01/24 10:27
Matrix: Water
Date Received: 04/04/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Dissolved	Analysis	6010D		1	608907	KLC	EET CLE	04/09/24 13:36
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6010D		1	608907	KLC	EET CLE	04/09/24 13:32
Dissolved	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Dissolved	Analysis	6020B		1	608867	RKT	EET CLE	04/08/24 16:01
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6020B		1	608867	RKT	EET CLE	04/08/24 15:59
Total/NA	Analysis	9056A		1	609191	JWW	EET CLE	04/11/24 05:32
Total/NA	Analysis	9056A		10	609191	JWW	EET CLE	04/11/24 06:38
Total/NA	Analysis	SM 2540C		1	608585	C5SV	EET CLE	04/05/24 10:00

Lab Chronicle

Client: TRC Environmental Corporation.
Job ID: 240-202179-1
Project/Site: CCR DTE Monroe Power Plant

Client Sample ID: MW-7S
Lab Sample ID: 240-202179-4
Date Collected: 04/01/24 11:37
Matrix: Water
Date Received: 04/04/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6010D		1	608907	KLC	EET CLE	04/09/24 13:41
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6020B		1	608867	RKT	EET CLE	04/08/24 16:09
Total/NA	Analysis	9056A		1	609191	JWW	EET CLE	04/11/24 06:59
Total/NA	Analysis	9056A		10	609191	JWW	EET CLE	04/11/24 07:21
Total/NA	Analysis	SM 2540C		1	608585	C5SV	EET CLE	04/05/24 10:00

Client Sample ID: MW-9
Lab Sample ID: 240-202179-5
Date Collected: 04/01/24 12:55
Matrix: Water
Date Received: 04/04/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6010D		1	608907	KLC	EET CLE	04/09/24 13:45
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6020B		1	608867	RKT	EET CLE	04/08/24 16:12
Total/NA	Analysis	9056A		1	609191	JWW	EET CLE	04/11/24 07:43
Total/NA	Analysis	SM 2540C		1	608585	C5SV	EET CLE	04/05/24 10:00

Client Sample ID: MW-10
Lab Sample ID: 240-202179-6
Date Collected: 04/01/24 13:30
Matrix: Water
Date Received: 04/04/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6010D		1	608907	KLC	EET CLE	04/09/24 13:49
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6020B		1	608867	RKT	EET CLE	04/08/24 16:14
Total/NA	Analysis	9056A		1	609191	JWW	EET CLE	04/11/24 08:26
Total/NA	Analysis	SM 2540C		1	608585	C5SV	EET CLE	04/05/24 10:00

Client Sample ID: MW-11
Lab Sample ID: 240-202179-7
Date Collected: 04/01/24 11:25
Matrix: Water
Date Received: 04/04/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6010D		1	608907	KLC	EET CLE	04/09/24 14:02
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6020B		1	608867	RKT	EET CLE	04/08/24 16:17
Total/NA	Analysis	9056A		1	609191	JWW	EET CLE	04/11/24 09:10
Total/NA	Analysis	9056A		10	609191	JWW	EET CLE	04/11/24 09:31
Total/NA	Analysis	SM 2540C		1	608585	C5SV	EET CLE	04/05/24 10:00

Client Sample ID: MW-12

Lab Sample ID: 240-202179-8

Date Collected: 04/01/24 12:35

Matrix: Water

Date Received: 04/04/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6010D		1	608907	KLC	EET CLE	04/09/24 14:06
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6020B		1	608867	RKT	EET CLE	04/08/24 16:19
Total/NA	Analysis	9056A		1	609191	JWW	EET CLE	04/11/24 09:53
Total/NA	Analysis	9056A		10	609191	JWW	EET CLE	04/11/24 10:58
Total/NA	Analysis	SM 2540C		1	608585	C5SV	EET CLE	04/05/24 10:00

Client Sample ID: MW-13

Lab Sample ID: 240-202179-9

Date Collected: 04/01/24 14:18

Matrix: Water

Date Received: 04/04/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6010D		1	608907	KLC	EET CLE	04/09/24 14:11
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6020B		1	608867	RKT	EET CLE	04/08/24 16:22
Total/NA	Analysis	9056A		1	609191	JWW	EET CLE	04/11/24 11:20
Total/NA	Analysis	SM 2540C		1	608585	C5SV	EET CLE	04/05/24 10:00

Client Sample ID: MW-14

Lab Sample ID: 240-202179-10

Date Collected: 04/01/24 09:05

Matrix: Water

Date Received: 04/04/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6010D		1	608907	KLC	EET CLE	04/09/24 14:15
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6020B		1	608867	RKT	EET CLE	04/08/24 16:24
Total/NA	Analysis	9056A		1	609191	JWW	EET CLE	04/11/24 16:02
Total/NA	Analysis	9056A		10	609191	JWW	EET CLE	04/11/24 16:24
Total/NA	Analysis	SM 2540C		1	608813	UWU2	EET CLE	04/08/24 11:54

Client Sample ID: MW-15

Lab Sample ID: 240-202179-11

Date Collected: 04/01/24 10:51

Matrix: Water

Date Received: 04/04/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6010D		1	608907	KLC	EET CLE	04/09/24 14:19
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6020B		1	608867	RKT	EET CLE	04/08/24 16:27
Total/NA	Analysis	9056A		1	609191	JWW	EET CLE	04/11/24 16:46
Total/NA	Analysis	SM 2540C		1	608585	C5SV	EET CLE	04/05/24 10:00

Lab Chronicle

Client: TRC Environmental Corporation.
Job ID: 240-202179-1
Project/Site: CCR DTE Monroe Power Plant

Client Sample ID: DUP-01
Lab Sample ID: 240-202179-12

Date Collected: 04/01/24 00:00
Matrix: Water

Date Received: 04/04/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6010D		1	608907	KLC	EET CLE	04/09/24 14:24
Total Recoverable	Prep	3005A			608597	BN	EET CLE	04/05/24 14:00
Total Recoverable	Analysis	6020B		1	608867	RKT	EET CLE	04/08/24 16:29
Total/NA	Analysis	9056A		1	609191	JWW	EET CLE	04/11/24 17:29
Total/NA	Analysis	9056A		10	609191	JWW	EET CLE	04/11/24 17:51
Total/NA	Analysis	SM 2540C		1	608585	C5SV	EET CLE	04/05/24 10:00

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: TRC Environmental Corporation. Job ID: 240-202179-1
Project/Site: CCR DTE Monroe Power Plant

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

MICHIGAN 190

Chain of Custody Record

MICHIGAN 190

eurofins | Environment Testing

Client Information	Sampler: A. Whaley / B. Tasso	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-119147-41638.1
Client Contact: Mr. Vincent Buening	Phone: 734-210-9259	E-Mail: Kris.Brooks@et.eurofinsus.com	State of Origin: MI	Page: Page 1 of 2
Company: TRC Environmental Corporation.	PWSID:			Job #:
Address: 1540 Eisenhower Place	Due Date Requested: Standard			
City: Ann Arbor	TAT Requested (days): Standard 10 Day			
State, Zip: MI, 48108-7080	Compliance Project: Δ Yes Δ No			
Phone: 313-971-7080(Tel) 313-971-9022(Fax)	PO #: 214277			
Email: vbuening@trccompanies.com	WO #:			
Project Name: CCR DTE Monroe Power Plant Bottom Ash Im	Project #: 24016830			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd - TDS	6010D - Bo, 6020A Ca & Fe	9056A_28D - Chloride, Fluoride and Sulfate	6010D - Bo, Dissolved Ca & Fe	Total Number of containers	Special Instructions/Note:
Preservation Code:							N	D	N	D		
MW-1S	4/1/24	1129	G	Water	Y	N	X	X	X	X	4	
MW-2S	4/1/24	1315	G	Water	N	N	X	X	X		3	
MW-3S	4/1/24	1027	G	Water	Y	N	X	X	X	X	4	
MW-7S	4/1/24	1137	G	Water	N	N	X	X	X		3	
MW-9	4/1/24	1255	G	Water	N	N	X	X	X		3	
MW-10	4/1/24	1330	G	Water	N	N	X	X	X		3	
MW-11	4/1/24	1125	G	Water	N	N	X	X	X		3	
MW-12	4/1/24	1235	G	Water	N	N	X	X	X		3	
MW-13	4/1/24	1418	G	Water	N	N	X	X	X		3	
MW-14	4/1/24	0905	G	Water	N	N	X	X	X		3	
MW-15	4/1/24	1051	G	Water	N	N	X	X	X		3	

240-202179 Chain of Custody

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) TRC EDD

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	4/2/24 1640	TRC		4/3/24 1445	EEN
	4/3/24 1640	EEN		4-4-24 800	ETTPC

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

MICHIGAN 190

eurofins | Environment Testing

Client Information	Sampler: A. Wheeler / K. Jasso	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-119147-41638.2
Client Contact: Mr. Vincent Buening	Phone: 734-210-4239	E-Mail: Kris.Brooks@et.eurofinsus.com	State of Origin: MI	Page: Page 2 of 2
Company: TRC Environmental Corporation.	PWSID:			Job #:
Address: 1540 Eisenhower Place	Due Date Requested: Standard			
City: Ann Arbor	TAT Requested (days): Standard			
State, Zip: MI, 48108-7080	Compliance Project: Δ Yes Δ No			
Phone: 313-971-7080(Tel) 313-971-9022(Fax)	PO #: 214277			
Email: vbuening@trccompanies.com	WO #:			
Project Name: CCR DTE Monroe Power Plant Bottom Ash Im	Project #: 24016830			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd - TDS	6010D - Bo, 6020A Ca & Fe	9056A_28D - Chloride, Fluoride and Sulfate	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	N		
DUP-01	4/1/24	—	G	Water	N	N	X	X	X	3	
[redacted]				Water							
				Water							
				Water							
				Water							
				Water							
				Water							

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) TRC EDD

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	4/2/24 1640	TRC	[signature]	4/3/24 1445	EEN
2	Relinquished by: [signature]	4/3/24 1640	EEN	Received by: [signature]	4-4-24 800	PETNC
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative Login #: 240179
Barberton Facility

Client TRC Site Name

Cooler Received on 4-4-24 Opened on 4-4-24

Cooler unpacked by:

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☒ See Multiple Cooler Form

IR GUN # 18 (CF 0.0 °C) Observed Cooler Temp °C Corrected Cooler Temp °C

2	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 each	Yes No
	-Were the seals on the outside of the cooler(s) signed & dated?	Yes No NA
	-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes No
	Were tamper/custody seals intact and uncompromised?	Yes No NA
3	Shippers' packing slip attached to the cooler(s)?	Yes No
4.	Did custody papers accompany the sample(s)?	Yes No
5	Were the custody papers relinquished & signed in the appropriate place?	Yes No
6	Was/were the person(s) who collected the samples clearly identified on the COC?	Yes No
7	Did all bottles arrive in good condition (Unbroken)?	Yes No
8	Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	
10	Were correct bottle(s) used for the test(s) indicated?	Yes No
11	Sufficient quantity received to perform indicated analyses?	Yes No
12	Are these work share samples and all listed on the COC?	Yes No
	If yes, Questions 13 17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	Yes No NA pH Strip Lot# HC329089
14.	Were VOAs on the COC?	Yes No
15	Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this	Yes No NA
16	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes No
17	Was a LL Hg or Me Hg trip blank present?	Yes No

Tests that are not checked for pH by Receiving

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18 CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container
Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory
Time preserved Preservative(s) added/Lot number(s)

VOA Sample Preservation Date/Time VOAs Frozen.

Login # : ______________

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 18	4.2	4.2	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: 18	1.3	1.3	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

WI-NC-099 Cooler Receipt Form Page 2 Multiple Coolers

4/4/2024

Login Container Summary Report

240-202179

4/13/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
MW-1S	240-202179-A 1	Plastic 60 mL - unpreserved				
MW 1S	240-202179-B-1	Plastic 500ml - unpreserved				
MW-1S	240-202179-C-1	Plastic 500ml - with Nitric Acid	<2			
MW-1S	240-202179-D-1	Plastic 500ml - w/ Nitric - Dis.	<2			
MW 2S	240-202179-A-2	Plastic 60 mL - unpreserved				
MW-2S	240-202179-B-2	Plastic 500ml - unpreserved				
MW-2S	240-202179-C-2	Plastic 500ml - with Nitric Acid	<2			
MW-3S	240-202179-A-3	Plastic 60 mL - unpreserved				
MW 3S	240-202179-B-3	Plastic 500ml - unpreserved				
MW-3S	240-202179-C-3	Plastic 500ml - with Nitric Acid	<2			
MW 3S	240-202179-D-3	Plastic 500ml - w/ Nitric - Dis.	<2			
MW-7S	240 202179-A-4	Plastic 60 mL - unpreserved				
MW 7S	240-202179-B-4	Plastic 500ml - unpreserved				
MW-7S	240-202179-C-4	Plastic 500ml - with Nitric Acid	<2			
MW-9	240-202179-A-5	Plastic 60 mL - unpreserved				
MW-9	240-202179-B-5	Plastic 500ml - unpreserved				
MW-9	240-202179-C-5	Plastic 500ml - with Nitric Acid	<2			
MW-10	240-202179-A-6	Plastic 60 mL - unpreserved				
MW-10	240-202179-B-6	Plastic 500ml - unpreserved				
MW 10	240-202179-C-6	Plastic 500ml - with Nitric Acid	<2			
MW-11	240-202179-A-7	Plastic 60 mL - unpreserved				
MW 11	240-202179-B-7	Plastic 500ml - unpreserved				
MW-11	240 202179-C-7	Plastic 500ml - with Nitric Acid	<2			
MW-12	240-202179-A-8	Plastic 60 mL - unpreserved				
MW-12	240-202179-B-8	Plastic 500ml - unpreserved				
MW-12	240-202179-C-8	Plastic 500ml - with Nitric Acid	<2			
MW-13	240-202179-A-9	Plastic 60 mL - unpreserved				
MW-13	240-202179-B-9	Plastic 500ml - unpreserved				
MW-13	240-202179-C-9	Plastic 500ml - with Nitric Acid	<2			
MW-14	240-202179-A-10	Plastic 60 mL - unpreserved				
MW-14	240-202179-B-10	Plastic 500ml - unpreserved				
MW-14	240 202179-C-10	Plastic 500ml - with Nitric Acid	<2			
MW-15	240-202179-A-11	Plastic 60 mL - unpreserved				
MW-15	240-202179-B 11	Plastic 500ml - unpreserved				
MW-15	240-202179-C-11	Plastic 500ml - with Nitric Acid	<2			

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
DUP-01	240 202179-A-12	Plastic 60 mL unpreserved				
DUP-01	240-202179-B-12	Plastic 500ml - unpreserved				
DUP-01	240-202179-C-12	Plastic 500ml - with Nitric Acid	<2			

Appendix C
Data Quality Reviews

Laboratory Data Quality Review
Groundwater Monitoring Event October 2023
DTE Electric Company Monroe Power Plant Bottom Ash Impoundment

Groundwater samples were collected by TRC for the October 2023 sampling event. Samples were analyzed for anions, select total and/or dissolved metals, and total dissolved solids by Eurofins Environment Testing, located in Barberton, Ohio. The laboratory analytical results are reported in laboratory report 240-193887-1 (Revision 1).

During the October 2023 sampling event, a groundwater sample was collected from each of the following wells:

- MW-1S
- MW-2S
- MW-3S
- MW-7S
- MW-9
- MW-10
- MW-11
- MW-12
- MW-13
- MW-14
- MW-15

Each sample was analyzed for one or more of the following constituents:

Analyte Group	Method
Anions (Chloride, Fluoride, Sulfate)	SW846 9056A
Total Recoverable Boron	SW846 3005A/6010D
Total Recoverable Calcium and Iron	SW846 3005A/6020B
Total Dissolved Solids (TDS)	SM 2540C

TRC reviewed the laboratory data to assess data usability. The following sections summarize the data review procedure and the results of the review.

Data Quality Review Procedure

The analytical data were reviewed using the USEPA National Functional Guidelines for Inorganic Superfund Data Review (USEPA, 2020). The following items were included in the evaluation of the data:

- Sample receipt, as noted in the cover page or case narrative;
- Technical holding times for analyses;
- Reporting limits (RLs) compared to project-required RLs;
- Data for method blanks and equipment blanks, where applicable. Method blanks are used to assess potential contamination arising from laboratory sample preparation and/or analytical procedures. Equipment blanks are used to assess potential contamination arising from field procedures;
- Data for laboratory control samples (LCSs). The LCSs are used to assess the accuracy of the analytical method using a clean matrix;
- Data for matrix spike and matrix spike duplicate samples (MS/MSDs), when performed on project samples. The MS/MSDs are used to assess the accuracy and precision of the analytical method using a sample from the dataset;

- Data for laboratory duplicates, when performed on project samples. The laboratory duplicates are used to assess the precision of the analytical method using a sample from the dataset;
- Data for blind field duplicates. Field duplicate samples are used to assess variability introduced by the sampling and analytical processes; and
- Overall usability of the data.

This data usability report addresses the following items:

- Usability of the data if quality control (QC) results suggest potential problems with all or some of the data;
- Actions regarding specific QC criteria exceedances.

Review Summary

The data quality objectives and laboratory completeness goals for the project were met, and the data are usable for their intended purpose. A summary of the data quality review, including non-conformances and issues identified in this evaluation are noted below.

- Appendix III constituents and iron will be utilized for the purposes of a detection monitoring program.
- Data are usable for the purposes of the detection monitoring program.

QA/QC Sample Summary

- TDS was analyzed slightly after the 7th day of collection for select samples. However, there is no impact on data usability since the samples were analyzed for TDS on the 7th day after collection.
- Target analytes were not detected in the method blanks.
- An equipment blank was not submitted with this data set.
- LCS recoveries for all target analytes were within QC limits.
- A laboratory duplicate analysis was not performed on a sample in this data set.
- MS/MSD analyses were performed on a sample MW-8S for anions. The recoveries for sulfate (56% and 53%, respectively) were below QC limits (80%-120%). Therefore, the positive and nondetect results for sulfate in all samples in this data set should be considered estimated with a potential low bias, as summarized in the attached table, Attachment C2.
- Samples DUP-01 and MW-14 were submitted as the field duplicate pair with this data set; relative percent differences between the parent and duplicate samples were within the QC limits.

Attachment C2

Summary of Data Non-Conformances for Groundwater Analytical Data

CCR DTE Monroe Power Plant - Bottom Ash Impoundment

Monroe, Michigan

Samples	Collection Date	Analyte	Non-Conformance/Issue
DUP-01	10/16/2023	Sulfate	Low matrix spike and matrix spike duplicate recovery (percent recoveries below criteria); potential low bias exists.
MW-1S	10/16/2023		
MW-2S	10/17/2023		
MW-3S	10/17/2023		
MW-7S	10/18/2023		
MW-9	10/17/2023		
MW-10	10/17/2023		
MW-11	10/17/2023		
MW-12	10/16/2023		
MW-13	10/16/2023		
MW-14	10/16/2023		
MW-15	10/18/2023		

Laboratory Data Quality Review
Groundwater Monitoring Event April 2024
DTE Electric Company Monroe Power Plant Bottom Ash Impoundment

Groundwater samples were collected by TRC for the April 2024 sampling event. Samples were analyzed for anions, total and/or dissolved metals, and total dissolved solids by Eurofins Cleveland, located in Barberton, Ohio. The laboratory analytical results are reported in laboratory report 240-202179-1.

During the April 2024 sampling event, a groundwater sample was collected from each of the following wells:

- MW-1S
- MW-2S
- MW-3S
- MW-7S
- MW-9
- MW-10
- MW-11
- MW-12
- MW-13
- MW-14
- MW-15

Each sample was analyzed for one or more of the following constituents:

Analyte Group	Method
Anions (Chloride, Fluoride, Sulfate)	SW846 9056A
Total Recoverable Boron	SW846 3005A/6010D
Total Recoverable Calcium and Iron	SW846 3005A/6020B
Total Dissolved Solids (TDS)	SM 2540C

TRC reviewed the laboratory data to assess data usability. The following sections summarize the data review procedure and the results of the review.

Data Quality Review Procedure

The analytical data were reviewed using the USEPA National Functional Guidelines for Inorganic Superfund Data Review (USEPA, 2020). The following items were included in the evaluation of the data:

- Sample receipt, as noted in the cover page or case narrative;
- Technical holding times for analyses;
- Reporting limits (RLs) compared to project-required RLs;
- Data for method blanks and equipment blanks, where applicable. Method blanks are used to assess potential contamination arising from laboratory sample preparation and/or analytical procedures. Equipment blanks are used to assess potential contamination arising from field procedures;
- Data for laboratory control samples (LCSs). The LCSs are used to assess the accuracy of the analytical method using a clean matrix;
- Data for matrix spike and matrix spike duplicate samples (MS/MSDs), when performed on project samples. The MS/MSDs are used to assess the accuracy and precision of the analytical method using a sample from the dataset;

- Data for laboratory duplicates, when performed on project samples. The laboratory duplicates are used to assess the precision of the analytical method using a sample from the dataset;
- Data for blind field duplicates. Field duplicate samples are used to assess variability introduced by the sampling and analytical processes; and
- Overall usability of the data.

This data usability report addresses the following items:

- Usability of the data if quality control (QC) results suggest potential problems with all or some of the data;
- Actions regarding specific QC criteria exceedances.

Review Summary

The data quality objectives and laboratory completeness goals for the project were met, and the data are usable for their intended purpose. A summary of the data quality review, including non-conformances and issues identified in this evaluation are noted below.

- Appendix III constituents as well as iron will be utilized for the purposes of a detection monitoring program.
- Data are usable for the purposes of the detection monitoring program.

QA/QC Sample Summary

- TDS was analyzed slightly after the 7th day of collection for sample MW-14. However, there is no impact on data usability since the samples were analyzed for TDS on the 7th day after collection.
- Target analytes were not detected in the method blanks.
- A field blank and equipment blank were not submitted with this sample set.
- LCS recoveries for all target analytes were within laboratory control limits.
- A laboratory duplicate analysis was performed on sample MW-9 for TDS; the RPD was within the QC limit.
- MS/MSD analyses were not performed on a sample from this data set.
- Samples DUP-01/MW-14 were submitted as a field duplicate pair with this data set; all criteria were met.